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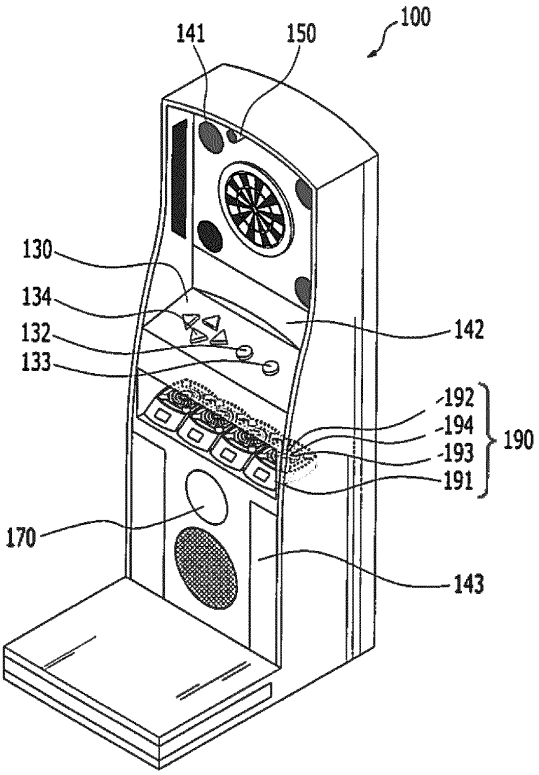
(54) **DART GAME APPARATUS PROVIDED WITH DRINK PROVIDING FUNCTION**

(57) A dart game apparatus which provides a player with a drink based on a hit location of a dart pin. The dart game apparatus may include: a dart target including a plurality of score regions; a sensing unit configured to detect a hit location of a dart pin in the dart target; a dispenser configured to supply a drink to a cup based on the hit location of the dart pin; and a controller configured to control an operation of the dispenser.

Fig. 4



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Description

TECHNICAL FIELD

[0001] The present disclosure relates to a dart game, and more particularly, to a dart game apparatus which provides a drink based on a hit location of a dart pin.

BACKGROUND ART

[0002] In general, a dart refers to a 'small arrow' and is a game that makes marks by throwing an arrow-shaped dart to a centrifugal target marked with figures. The dart game has an advantage in that anybody can enjoy the dart game anytime and anywhere if there are only an arrow-headed dart and the dart target.

[0003] In general, in order for participants of a dart game to enjoy the dart game, the participants need to participate in the game at the same time and the same place. However, according to the development of the communication technology, electronic dart game apparatuses which enable each of the participants of a dart game to participate in the dart game at a remote distance so that the participants are capable of participating in the game over temporal and spatial limits, and enable each of the participants to transmit his/her play result or play process to the remote distance via a communication network have been developed. The electronic dart game apparatuses may electrically detect a hit location of a dart target, automatically collect a score, and provide the collected score to a user.

[0004] Korean Patent No. 10-0824354 related to the electronic dart game apparatus discloses an electronic dart game apparatus using an Internet communication network.

[0005] The dart game has been recently developed to global leisure through the development of various game schemes and the standardization of a scoring scheme, so that all people conveniently enjoy the dart game without distinction of age or gender.

[0006] However, due to an essential characteristic of the dart game, an entire process of the dart game includes a simple process in which when a player throws a dart pin, a score is collected, so that there is a need to improve an entertainment element of the dart game in the corresponding industry world.

SUMMARY OF THE INVENTION

[0007] The present disclosure is conceived in response to the foregoing background art, and an object of the present disclosure is to improve an entertainment element of a dart game.

[0008] Exemplary embodiments of the present disclosure disclose a dart game apparatus which provides a player with a drink based on a hit location of a dart pin. The dart game apparatus may include: a dart target including a plurality of score regions; a sensing unit configured to detect a hit location of a dart pin in the dart target; a dispenser configured to supply a drink to a cup based on the hit location of the dart pin; and a controller configured to control an operation of the dispenser.

[0009] Alternatively, when the dart pin hits a position of a predetermined score region among the plurality of score regions, the controller may permit the dispenser to supply a drink to the cup.

[0010] Alternatively, the controller may determine whether a predetermined event is generated at least partially based on progress information of a currently progressing dart game, and when the predetermined event is generated, the controller may control the dispenser to supply a drink to the cup based on the generated event.

[0011] Alternatively, the controller may adjust the amount of drink which the dispenser supplies to the cup based on the generated event.

[0012] Alternatively, the dispenser may include a dispenser lighting unit, and when the predetermined event is generated, the controller may control the dispenser lighting unit so as to illuminate a cup received in a cup receiving part based on the generated event.

[0013] Alternatively, the dispenser lighting unit may emit light based on a color allocated to a dart game player.

[0014] Alternatively, the dispenser may include a drink discharging part which supplies a drink from a lower portion of a cup received in a cup receiving part.

[0015] Alternatively, the dart game apparatus may further include a sound output unit which generates a sound effect, and when the predetermined event is generated, the controller may control the sound output unit based on the generated event.

[0016] According to the configuration of the present disclosure, it is possible to improve an entertainment element of a dart game.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] Hereinafter, various aspects are described with reference to the drawings, and similar reference numerals are used for indicating generally similar constituent elements. In the exemplary embodiments below, for the purpose of explanation, a plurality of specific detailed matters is presented for general understanding of one or more aspects. However, it is apparent that the aspect(s) may be implemented without the particular detailed matters. In other examples, publicly known structures and devices are illustrated in a form of a block diagram so as to easily describe one or more aspects.

FIG. 1 is a conceptual diagram illustrating a dart game system according to exemplary embodiments of the present disclosure.

FIG. 2 is a block diagram of a dart game apparatus according to exemplary embodiments of the present disclosure.

FIG. 3 is a diagram for describing a controller related to an exemplary embodiment of the present disclo-

sure.

FIG. 4 is a perspective view of the dart game apparatus according to exemplary embodiments of the present disclosure.

FIG. 5 is another perspective view illustrating the dart game apparatus according to exemplary embodiments of the present disclosure.

FIG. 6 is a diagram illustrating an example of a case where a predetermined event is generated according to exemplary embodiments of the present disclosure.

FIG. 7 is a diagram illustrating another example of a case where a predetermined event is generated according to exemplary embodiments of the present disclosure.

DETAILED DESCRIPTION

[0018] Various exemplary embodiments will now be described with reference to drawings and like reference numerals are used to refer to like elements throughout all drawings. In the specification, various descriptions are presented to provide appreciation of the present disclosure. However, it is apparent that the embodiments can be executed without the specific description. In other examples, known structures and apparatuses are presented in a block diagram form in order to facilitate description of the embodiments.

[0019] Various exemplary embodiments will now be described with reference to drawings. In the following description, for the purpose of a description, multiple detailed matters will be disclosed in order to help comprehensive appreciation of one or more exemplary embodiments. However, those skilled in the art will recognize even that the exemplary embodiment(s) can be executed without the detailed matters. In the following disclosure and the accompanying drawings, specific exemplary embodiments of one or more exemplary embodiments will be described in detail. However, the exemplary embodiments are exemplary and some of various methods in principles of various exemplary embodiments may be used and the descriptions are intended to include all of the exemplary embodiments and equivalents thereof.

[0020] Various exemplary embodiments and features will be presented by a system which may include multiple devices, components, and/or modules. It should also be appreciated and recognized that various systems may include additional apparatuses, components, and/or modules and/or that the various systems may not include all of apparatuses, components, modules, and the like discussed in association with the drawings.

[0021] In "exemplary embodiment", "example", "illustration", and the like used in the specification, it may not be construed that a predetermined embodiment or design which is described is more excellent or advantageous than other exemplary embodiments or designs. 'Component', 'module', 'system', 'interface', and the like which are terms used below generally mean computer-related entities and mean, for example, hardware, a combination of the hardware and software, and the software.

[0022] The term "or" is intended to mean not exclusive "or" but inclusive "or". That is, when not separately specified or not clear in terms of a context, a sentence "X uses A or B" is intended to mean one of the natural inclusive substitutions. That is, the sentence "X uses A or B" may be applied to all of the case where X uses A, the case where X uses B, and the case where X uses both A and B. Further, it should be understood that the term "and/or" used in the specification designates and includes all available combinations of one or more items among enumerated related items.

[0023] The term "comprises" and/or "comprising" means that the corresponding feature and/or component is present, but it should be appreciated that presence or addition of one or more other features, components, and/or a group thereof is not excluded. Further, when not separately specified or not clear in terms of the context that a singular form is indicated, it should be construed that a singular form generally means "one or more" in the present specification and the claims.

[0024] The description of the presented exemplary embodiments is provided so that those skilled in the art of the present disclosure use or implement the present disclosure. Various modifications of the exemplary embodiments will be apparent to those skilled in the art and general principles defined herein can be applied to other exemplary embodiments without departing from the scope of the present disclosure. Therefore, the present disclosure is not limited to the exemplary embodiments presented herein, but should be analyzed within the widest range which is coherent with the principles and new features presented herein.

[0025] Hereinafter, exemplary embodiments according to the present disclosure will be described in detail with reference to the accompanying drawings.

[0026] FIG. 1 is a conceptual diagram illustrating a dart game system according to exemplary embodiments of the present disclosure.

[0027] The dart game system according to exemplary embodiments of the present disclosure may include a dart game apparatus 100, a user terminal 500, and a dart game server 300. The dart game apparatus 100, the user terminal 500, and the dart game server 300 may be connected via a communication network 400. The constituent elements connected to the communication network 400 may transmit and receive data via the communication network 400.

[0028] The dart game apparatus 100 may be disposed in various places, so that the dart game apparatus 100 which is to be played may be selected. The dart game apparatus 100 may be installed in a space, such as a pub, in which a user may enjoy a game. The number of dart game apparatuses 100 may be two or more, and a user may select any one of the plurality of dart game apparatuses 100.

[0029] A user optical code may be displayed on the

user terminal 500 and may be photographed by the dart game apparatus. Further, the user may also photograph a dart game apparatus optical code displayed on the dart game apparatus 100 by using the user terminal 500. The user terminal 500 may also exchange data by photographing the dart game apparatus optical code displayed on the dart game apparatus 100. The user may log in the dart game apparatus by using a module including a possessed radio frequency identification (RFID) chip. The module including the RFID chip may be included in the user terminal, a card, a form, such as a sticker, attached to a user good, a wearable device, and the like. Further, the user terminal 500 may also receive data via the dart game server 300 and the communication network 400. The module including the RFID chip is simply an example, and the present disclosure is not limited thereto.

[0030] The dart game apparatus 100 may display the dart game apparatus optical code on a display 142 of the dart game apparatus 100 or may also photograph the user optical code displayed on the user terminal 500. The dart game apparatus 100 may also receive data by photographing the user optical code displayed on the user terminal 500. The dart game apparatus 100 may recognize a tagged or close RFID chip and extract information stored in the RFID chip. The information stored in the RFID chip may include user identification information. The kind of RFID chips is various, and the RFID chip may use a predetermined frequency. The dart game apparatus 100 may transmit the information stored in the RFID chip which the user possesses to the dart game server 300 and update the user identification information. For example, when the user plays the dart game in the dart game apparatus 100 in an offline state, the dart game apparatus 100 stores information of the played dart game in the RFID chip. Then, when the user attempts to log in the dart game apparatus 100 in the online state through the RFID chip, the dart game apparatus 100 may compare the record stored in the RFID chip with a storage record of the dart game server 300, change the storage record of the dart game server 300 to the information stored in the RFID chip, and store the information stored in the RFID chip.

[0031] Although not illustrated in the drawing, the dart game server 300 may be integrally provided with the dart game apparatus 100. An operator of the dart game system may also install the dart game server 300 inside the dart game apparatus 100. For example, the operator may select any one of the dart game apparatuses and set the selected dart game apparatus as a main dart game apparatus. The dart game apparatuses except for the main dart game apparatus may be configured as sub dart game apparatuses and the dart game server 300 may be installed inside the main dart game apparatus. However, this is illustrative, and the dart game server 300 may be positioned outside the dart game apparatus 100 and may also communicate with other dart game apparatuses. The number of sub dart game apparatuses may be two or more. The main dart game apparatus may be connected with the dart game server installed therein via the network. Further, the main dart game apparatus and the one or more sub dart game apparatuses may be connected with each other via the communication network 400.

[0032] Herein, the communication network 400 may include a wireless local area network LAN (WLAN), Wi-Fi, wireless broadband (Wibro), world interoperability for microwave access (Wimax), high speed downlink packet access (HSDPA), Institute Electrical and Electronics Engineers (IEEE) 802.16, long term evolution (LTE), a wireless mobile broadband service (WMBS), and the like.

[0033] A short-range communication technology may include Bluetooth, RFID, infrared data association (IrDA), ultra wideband (UWB), ZigBee, near field communication (NFC), and the like.

[0034] A wired communication technology may include universal serial bus (USB) communication, Ethernet, serial communication, an optical/coaxial cable, and the like.

[0035] The dart game apparatus 100 according to the exemplary embodiment of the present disclosure may provide a drink through a dispenser 190 based on a hit location of a dart pin as a reward while the user plays the dart game. The dart game apparatus 100 according to the exemplary embodiment of the present disclosure may provide a drink through the dispenser 190 based on a hit location of a dart pin as a penalty while the user plays the dart game. The dart game apparatus 100 according to the exemplary embodiment of the present disclosure may improve an entertainment element of the dart game by using the dispenser 190.

[0036] The contents illustrated in FIG. 1 are illustrative drawings for describing the dart game apparatus 100 which is capable of providing a drink based on a hit location of a dart pin according to the exemplary embodiments of the present disclosure, and the present disclosure is not limited thereto.

[0037] FIG. 2 is a block diagram of the dart game apparatus according to exemplary embodiments of the present disclosure.

[0038] The dart game apparatus 100 according to one aspect of the present disclosure may include a dart target 110, a sensing unit 120, a player input unit 130, an output unit 140, a camera unit 150a, an optical sensor unit 150b, a network connecting unit 160, a player recognizing unit 170, a memory 180, the dispenser 190, a controller 200, and the like. The constituent elements illustrated in FIG. 2 are not essential, so that the dart game apparatus including more or less constituent elements may also be implemented. Hereinafter, the constituent elements will be sequentially described.

[0039] The dart target 110 may include a score board, in which a bullseye is positioned at a center thereof, and which includes concentric circles having the bullseye as a center and areas divided by straight lines that are radially extended from the bullseye and having assigned individual scores. A plurality of holes, into which a tip of a dart may be fitted, may be disposed on the score board.

[0040] The dart target 110 includes a display 142, which will be described below, to variably change a score disposition and a shape of the areas, to which the scores are assigned, of the dart target 110. In this case, the dart target 110 may include a light transmissive touch pad which is laminated on the display 142 to have a form of a touch screen.

[0041] The sensing unit 120 may detect a play of a dart game players performed with respect to the dart target 110. The sensing unit 120 may evaluate an actual play of a game player. For the play, in which the game player throws a dart pin, the sensing unit 120 may sense whether the thrown dart pin hits the dart target 110 and an area of the dart target 110 which the thrown dart pin hits. The sensing unit 120 may electrically convert a score corresponding to the area, in which the dart pin is fixed, and transmit the converted score to the controller 200. Otherwise, the sensing unit 120 may transmit an electrical signal corresponding to the area, in which the dart pin is fixed, to the controller 200, and herein, a score corresponding to the electrical signal may also be calculated by the controller 200.

[0042] The player input unit 130 receives an input of a player for controlling the dart game apparatus 100. The player input unit 130 may include a key pad, a dome switch, a touch pad (capacitive/resistive), a jog wheel, a jog switch, and the like. The player input unit 130 may also include cameras 151a, ..., and 153a, a microphone, and the like. Additionally, the player input unit 130 may also include a short-range communication module (not illustrated) which will be described below. In the exemplary embodiment of the present disclosure, the player input unit 130 may also include a short-range communication module (not illustrated) of the network connecting unit 160. When the player input unit 130 includes the short-range communication module of the network connecting unit 160, the player input unit 130 may receive a user input input by an external console device. As a short-range communication technology, Bluetooth, radio frequency identification (RFID), infrared data association (IrDA), ultra wideband (UWB), ZigBee, and the like may be used. For example, when the player input unit 130 performs the short-range communication by using the IrDA, an external console device may be an infrared remote controller. Otherwise, when the player input unit 130 performs the short-range communication by using the Bluetooth function, an external console device may be a mobile device including a Bluetooth module. The mobile device including the Bluetooth module may be, for example, a smart phone including a Bluetooth module. The presented short-range communication technology is simply illustrative, and the present disclosure is not limited thereto.

[0043] A player may select a dart game method, a match making request, a match approval, the number of dart game players, a dart game play method, and the like through the player input unit 130. For example, the player may select the number of dart game players, a dart game play method (a zero-one game, a cricket game, a count-up game, and the like), a dart game method (a one-person play, a network play, and the like), an off-line match making request, and a match approval, through the player input unit 130.

[0044] The player input unit 130 may detect a key operation or a touch input of the player and receive a signal, or receive a voice or an operation via the cameras 151 a, ..., and 153a of the player or the microphone and convert the received voice or operation into an input signal. To this end, publicly known speech recognition technology or motion recognition technology may be used.

[0045] The player input unit 130 may help the player to select a scheme of log-in to the dart game apparatus 100. The scheme of the log-in may be a log-in scheme using a one time password (OTP), near field communication (NFC), an ID and a password, an optical code (for example, a barcode and a quick response (QR) code), RFID, and the like. The foregoing log-in scheme is simply illustrative, and the present disclosure is not limited thereto.

[0046] When the player logs in the dart game apparatus 100 by using an optical code, the player input unit 130 may help the player to select a method of logging in the dart game apparatus 100 by photographing the user optical code by the dart game apparatus 100, a method of logging in the dart game apparatus 100 by photographing the dart game apparatus optical code by the user terminal 500, a method of logging in the dart game apparatus 100 as a manager using a manger optical code, a method of logging in the dart game apparatus 100 by using RFID, a method of logging in the dart game apparatus 100 by using Bluetooth, and the like. The foregoing logging in method is simply illustrative, and the present disclosure is not limited thereto.

[0047] The output unit 140 generates an output related to a visual sense, an auditory sense, a tactile sensor, or the like, and may include a sound output module 141, the display 142, a lighting unit 143, and the like.

[0048] The sound output unit 141 may output audio data received from the network connecting unit 160 or stored in the memory 180 in sound effects of a game, a game operation guide, a game method explanation, and the like. The sound output unit 141 may also output a sound signal related to a function (for example, a game sound effect) performed in the dart game apparatus 100. Further, the sound output unit 141 may output a sound from a game player using another dart game apparatus or a third person received through the network connecting unit 160. The sound output unit 141 may include a receiver, a speaker, a buzzer, and the like. When the dart game apparatus 100 measures a speed of a thrown dart pin, information and/or a reward for the speed may also be output as audio information by the sound output unit.

[0049] When the log-in is performed by using the optical code, the sound output unit 141 may notify a player of a remaining time until the optical code is expired by outputting a sound signal. Further, the sound output unit

141 may guide the method of logging in the dart game apparatus 100 to the player through a voice in stages. For example, in the operation of photographing, by the dart game apparatus 100, the user optical code displayed on the user terminal 500, the sound output unit 141 may output a sound that "place the user optical code displayed on the user terminal in front of the camera of the dart game apparatus".

[0050] The sound output unit 141 may output a guide voice when the log-in is performed by using an RFID card. For example, when the RFID is not recognized, the sound output unit 141 may output a guide speech that "contact the RFID card again" or when the RFID is properly recognized, the sound output unit 141 may output a sound effect, such as a beeping sound. The sound output unit may confirm an identity of a longing-in player by outputting an ID or a name of the logging-in player, or induce competition and interests between players by outputting a ranking or a point of the logging-in player. The foregoing sound output is simply illustrative, and the present disclosure is not limited thereto.

[0051] The sound output unit 141 may generate a sound effect. Particularly, the sound output unit may generate a sound effect of improving an entertainment element. For example, the sound output unit may generate a sound effect of indicating a name, a nickname, and the like of a winning player when a victory or a defeat of the game is determined. As another example, the sound output unit may generate a sound effect (for example, "one more !! one more !!") of inducing an additional game when a victory or a defeat of the game is determined. However, the sound output unit is not limited thereto, and the sound output unit 141 may generate various sound effects.

[0052] The display 142 displays (outputs) information processed by the dart game apparatus 100. For example, when the dart game apparatus 100 is in a game play scheme guide mode, the display 142 may output a selectable game play scheme. Additionally, when the dart game apparatus 100 receives an offline match making request, the display 142 may output a match making standby player list. Further, when the dart game apparatus 100 is being operated, the display 142 may display a score sensed through the sensing unit 120, or output an image obtained by photographing a game player using another dart game apparatus or a third person received via the network connecting unit 160.

[0053] When the dart game apparatus 100 is in a log-in selection guide mode, the display 142 may output a log-in scheme selectable by a player. The display 142 may output a log-in means according to the log-in method selected by the player. For example, an OTP authentication number, an optical code, an ID and password input window, an RFID touch guide, and the like may be output. The described log-in means is simply illustrative, and the present disclosure is not limited thereto.

[0054] The display 142 may display the dart game apparatus optical code including dart game apparatus identification information. Additionally, the dart game apparatus identification information may also include at least one of identification information, a unique number, position information, program version information, and log-in record information of the dart game apparatus. The dart game apparatus identification information may include information which is capable of discriminating the dart game apparatus from another dart game apparatus. Additionally, the display 142 may display game place information, a log-in valid time of the optical code, a log-in method selection, an optical code log-in guide, and the like. The foregoing dart game apparatus identification information and information displayed in the display 142 are illustrative, and the present disclosure is not limited thereto.

[0055] The display 142 may further include an optical code dedicated display for supporting log-in utilizing an optical code. The optical code dedicated display may display one or more separately generated optical codes so as to prevent duplicate log-in in accordance with the plurality of concurrent players. The optical code dedicated display may display an optical code in accordance with a situation, and additionally, an optical code including apparatus information, record information, or the like may be displayed on the optical code dedicated display in real time so that the optical code may be photographed and stored in the user terminal 500.

[0056] The display 142 may display a guide image so as for a user to tag a module including the RFID chip. When the log-in is successful through the RFID chip, the display 142 may display user identification information included in the RFID chip on the display 142, and may perform a display related to a game progress. Further, the display 142 may also display a synchronization image between the dart game server 300 and the RFID chip. When the log-in through the RFID chip is failed, the display 142 may also display an image so as for a user to re-attempt log-in or select another log-in means.

[0057] When the dart game apparatus 100 measures a speed of a dart pin, the display 142 may display the measured speed information of the dart pin, or may also display information on a dart pin speed of a corresponding player and a dart pin speed of another person, comparison information between the measured speed of the dart pin with predetermined speed information, or accuracy rate correlation information between the speed of the dart pin and a specific score region of the dart target.

[0058] The display 142 may include at least one of a liquid crystal display (LCD), a thin film transistor liquid crystal display (TFT LCD), an organic light emitting diode (OLED), a flexible display, and a 3D display. Among them, some displays may be formed in a transparent type or a light transmissive type, through which an outside may be viewed. This may be called a transparent display, and a representative example of the transparent display is a transparent OLED (TOLED).

[0059] In the exemplary embodiment of the present disclosure, two or more displays 142 may be present

according to an implementation form of the dart game apparatus 100. For example, in the dart game apparatus 100, a plurality of displays may be disposed on one surface while being spaced apart from one another or being integrated with one another, or may also be disposed on different surfaces, respectively. For example, the display 142 may include both a display disposed at an upper end of the dart target 110 and a display disposed at a lower end of the dart target 110, or may include any one display among them. However, the position of the display disposed is one example, and the display may be disposed at various positions for a need in design or a visual effect.

[0060] The touch sensor may be configured to convert a change in a pressure applied to a specific region of the display 142, a capacitance generated in a specific region of the display 142, or the like into an electrical input signal. The touch sensor may be configured to detect even a pressure at the time of the touch, as well as a position and an area of the touch. When a touch input is generated in the touch sensor, a signal(s) corresponding to the touch input is transmitted to a touch controller. The touch controller processes the signal(s), and then transmits corresponding data to the controller 200. Accordingly, the controller 200 may recognize a touched region of the display 142, and the like.

[0061] The lighting unit 143 outputs a signal for notifying a generation of an event in the dart game apparatus 100. Examples of the event generated in the dart game apparatus 100 include identification of a dart game player, a hitting of the dart, a change in a dart game player, and game termination. The lighting unit 143 may include a light emission diode (LED), thereby notifying a user of the generation of the event through flickering of the LED. The LEDs may be disposed on a rear surface of the dart target 110, thereby flickering according to a pre-stored flickering pattern according to the generation of the event. For example, one or more LEDs may be allocated to each part of the dart target 110. The allocated LEDs may be disposed on the rear surface of the dart target 110, and may be disposed in a direction toward an outside of the dart game apparatus 100. When the LEDs emit light, the light emitted by the LEDs may pass through the dart target 110 which is formed of a transparent or a semi-transparent material to transfer a visual output to the user. Otherwise, the light emitted by the LEDs may transfer a visual output to the user through a gap existing in the dart target 110.

[0062] The lighting unit 143 may notify the user of the currently log-in scheme by differentiating a color of lighting according to the log-in scheme. Further, when a user logs in the dart game apparatus 100 by utilizing the optical code, the lighting unit 143 may notify the user of a remaining time until a log-in valid time of the user optical code or the dart game apparatus optical code is expired by flickering or a color change of the lighting. Further, the lighting unit 143 may also display a position of the camera unit 150a of the dart game apparatus with lighting for the recognition of the user optical code displayed on the user terminal 500 in an interior dark environment, and may also display the player recognizing unit 170 to which the RFID chip tags with another lighting color. The lighting unit 143 may also display a range of the recognition of the user optical code displayed in the user terminal 500 with lighting or laser.

[0063] The lighting unit 143 may output a signal emphasizing the dispenser 190. Particularly, the lighting unit 143 may output a signal emphasizing a position of the dispenser 190. For example, the lighting unit 143 may output a signal which illuminates the dispenser 190 while flickering. Further, the lighting unit 143 may illuminate the dispenser 190 with a color allocated to the dart game player to indicate a player receiving a drink as a reward or a penalty. However, the lighting unit 143 is not limited thereto, and may output various signals emphasizing the dispenser 190.

[0064] The output unit 140 may also output a signal for notifying the generation of the event in another form, for example, vibration, other than a video signal or an audio signal. As another example, the output unit 140 may also output a signal for notifying a game start with spark ignition or firework. In one aspect of the present disclosure, as illustrated in FIG. 1, the output unit 140 may also embrace the sound output unit 141, the display 142, and the lighting unit 143. For example, the output unit 140 may output information on a measured speed of the dart pin and/or a reward for the measured speed of the dart pin in various schemes.

[0065] The camera unit 150a includes a plurality of cameras 151a, ..., and 153a, and the image frames processed in the cameras 151a, ..., and 153a may be stored in the memory 180 or may be transmitted to the outside via the network connecting unit 160. The camera unit 150a may be formed of one camera or may also be formed of two or more cameras according to a usage environment.

[0066] The camera unit 150a may photograph the user optical code displayed on at least one of the user terminal 500 and an ID card. The photographed user optical code may be processed by the controller 200, so that information may be recognized, or may be transmitted to an external device, such as the dart game server 300, via the network connecting unit 160. The camera unit 150a may also be formed of a camera, but may also include an optical code scanner.

[0067] The camera unit 150a may be activated in a log-in standby state. For example, the log-in standby state may be from a time at which a log-in selection window is displayed on the display 142 to a time at which the network connecting unit 160 receives dart game start authorization information. The log-in standby state may be from a time in which the player selects the method of logging in the dart game apparatus by using the optical code to a time in which the network connecting unit 160 extracts user identification information from the user optical code. Further, the log-in standby state may be from a time in which the player contacts the RFID chip to the

player recognizing unit 170 to a time in which information included in the RFID chip is received.

[0068] The optical sensor unit 150b includes one or more optical sensors 151b, ..., and 153b, and the optical sensors 151b, ..., and 153b may be disposed so as to detect a dart pin at one or more points in a movement path of the dart pin.

[0069] The network connecting unit 160 may include one or more modules, which are capable of enabling wireless communication between the dart game apparatus 100 and a wired/wireless communication system or the dart game apparatus 100 and a network in which the dart game apparatus 100 is positioned. In the exemplary embodiment of the present disclosure, the network connecting unit 160 may include a transmitting unit and a receiving unit. The network connecting unit 160 may include a wired/wireless Internet module for a network connection. As the wireless Internet technology, wireless LAN (WLAN, Wi-Fi), a wireless broadband (Wibro), world interoperability for microwave access (Wimax), and high speed downlink packet access (HSDPA), and the like may be used. As the wired Internet technology, a digital subscriber line (XDSL), fibers to the home (FTTH), power line communication (PLC), and the like may be used.

[0070] The network connecting unit 160 may include a short-range communication module and transceive data with an electronic device which is positioned in a relatively short distance from the dart game apparatus 100 and includes a short-range communication module. As a short-range communication technology, Bluetooth, radio frequency identification (RFID), infrared data association (IrDA), ultra wideband (UWB), ZigBee, and the like may be used. In the exemplary embodiment of the present disclosure, the network connecting unit 160 may detect a connection state of a network and a transception speed of a network. The data received through the network connecting unit 160 may be output via the output unit 140, may be stored via the memory 180, or may be transmitted to other electronic devices located in a short distance via the short-range communication module.

[0071] When the dart game apparatus 100 measures a speed of a dart pin, information on the speed of the dart pin may also be transmitted to a mobile device, a PC, or the like of a player based on identification information of the player and the like by the network connecting unit 160.

[0072] In the exemplary embodiment of the present disclosure, the network connecting unit 160 may transmit the image of the user optical code photographed by the camera, the user identification information extracted through the user optical code, the information included in the RFID chip, the user identification information included in the RAFID chip, the log-in request, the dart game apparatus position information, the user position information, and the like to the dart game server 300. The network connecting unit 160 may receive the dart game apparatus optical code, the dart game start authorization information, and the like transmitted from the dart game server 300. The dart game start authorization information may be the information generated based on the user identification information or the dart game apparatus identification information, and may be the information which permits the player to play the dart game.

[0073] In the exemplary embodiment of the present disclosure, the network connecting unit 160 may also transmit the dart game apparatus identification information to the dart game server 300. The dart game apparatus identification information may include at least one of the identification information, the unique number, the position information, the version information of the program, and the log-in record information of the dart game apparatus. The dart game apparatus identification information may also be stored in the memory 180, and may also be generated by the controller 200 according to a request for the dart game apparatus identification information.

[0074] The player recognizing unit 170 may recognize unique information about a remote player based on radio waves by using the RFID technology that is the kind of short-range communication technology. For example, a user may possess a card including an RFID module, a mobile terminal, or unique dart game equipment, for example, user's own personal dart equipment. Information for identifying the user (for example, a personal ID and an identification code of the user registered in a database server DB) may be recorded in the RFID module possessed by the player. The dart game apparatus 100 identifies the RFID module possessed by the user, thereby identifying a dart game player playing the dart game by using the dart game apparatus 100, and updating a database for the identified dart game player or accumulating new data. In the exemplary embodiment of the present disclosure, the player recognizing unit 170 may be integrated into the player input unit 130.

[0075] The player recognizing unit 170 may include various technologies (for example, the short-range communication technology, such as Bluetooth) which are capable of transmitting/receiving unique information about a user by a contact/contactless method, in addition to the RFID technology. Further, the player recognizing unit 170 may include a biodata identification module which is linked with the microphone, the touch pad, the camera unit 150a, and the like of the user input unit 130 to identify biodata (a voice, a fingerprint, and a face) of the player. The player may log in the dart game apparatus by additionally authenticating the player with the recognition of a fingerprint, an iris, and a face via the biodata identification module. Further, the player recognizing unit 170 may also be linked with the camera unit 150 and recognize the player by recognizing the optical code.

[0076] The memory 180 may store a program for an operation of the controller 200, and may temporarily or permanently store input/output data (for example, a phone book, messages, still images, video, and sound effects). The memory 180 may store data about various patterns of vibration and sounds output when a touch is

input onto the touch screen. The memory 180 may include at least one type of storage medium among a flash memory type, a hard disk type, a multimedia card micro type, and the card type of memory (for example, an SD or XD memory), a random access memory (RAM), a static random access memory (SRAM), a read-only memory (ROM), an electrically erasable programmable read-only memory (EEPROM), a programmable read-only memory (PROM), a magnetic memory, a magnetic disk, and an optical disk. The dart game apparatus 100 may operate in association with a web storage which performs a storage function of the memory 180 on the Internet.

[0077] The memory 180 may store at least a part of photographing data obtained by photographing two or more points in a movement path of a dart pin. Further, the memory 180 may also delete photographing data which is not loaded by other components, such as the controller 200, or other devices among the stored photographing data after a predetermined time. The memory 180 may store all of the photographed optical codes, such as the user optical code and the dart game apparatus optical code, photographed by the camera unit 150a. Further, the memory 180 may have stored a text manual or a voice manual guiding a log-in method to a user. The memory 180 may store reserved log-in information, frequently used player's automatic log-in information, player's automatic payment information, reserved booting information, and the like. The storable information is simply illustrative, and the present disclosure is not limited thereto.

[0078] The memory 180 may store the log-in record of the player which had logged in the dart game apparatus 100. The log-in record may be stored in the dart game apparatus identification information and transmitted to the dart game server 300. The dart game server 300 may confirm whether the player is a player frequently logging in the dart game apparatus 100 by utilizing the log-in record. For example, when a player who does not have a log-in record logs in the dart game apparatus 100 for the first play, the dart game apparatus 100 may transmit log-in record information and a log-in information hacking danger notification to the player through a text message of a personal mobile phone, an e-mail, an SNS, and the like of the logging-in player. The notification means is simply illustrative, and the present disclosure is not limited thereto.

[0079] The memory 180 may store information about a player playing the dart game. For example, the memory 180 may store information for identifying a player playing the dart game and play game information (for example, the highest score, the number of times of the play, and a play time). However, the memory is not limited thereto, and the memory 180 may store various information about a player playing the dart game.

[0080] In the exemplary embodiment of the present disclosure, the dart game apparatus 100 may include the dispenser 190 which supplies a drink to a cup based on a hit location of a dart pin.

[0081] The dispenser 190 may include a dispenser body part 191, a drink discharging part 192, a cup receiving part 193, and a dispenser lighting unit 194. The constituent elements of the dispenser 190 are not essential, so that the dart game apparatus including more constituent elements or less constituent elements may also be implemented.

[0082] The dispenser 190 may be combined with the dart game apparatus 100. Particularly, the dispenser 190 may be formed at a portion of the dart game apparatus. For example, the dispenser 190 may be formed in a front surface of the dart game apparatus 100. Further, the dispenser 190 may be removably combined to the dart game apparatus 100. For example, the dispenser 190 may be removably fitted to a lateral surface of the dart game apparatus. Further, the dispenser 190 may be separately formed from the dart game apparatus 100. When the dispenser 190 is formed outside the dart game apparatus 100, the dispenser 190 may be connected to the network connecting unit 160 and be controlled by the controller 200. However, the dispenser 190 is not limited thereto, and may be formed in various schemes.

[0083] The dart game apparatus 100 may include one or more dispensers 190. According to the exemplary embodiment, the dart game apparatus 100 may include one dispenser 190. The dart game apparatus 100 may provide a drink to a plurality of players by using one dispenser 190. As another exemplary embodiment, the dart game apparatus 100 may include a plurality of dispensers 190. The dart game apparatus may provide a drink to a plurality of players by using the plurality of dispensers 190. For example, the dart game apparatus 100 may include the dispensers 190 corresponding to the number corresponding to the number of maximum players who are capable of concurrently playing. When the number of maximum players who are capable of concurrently playing is four, the dart game apparatus may provide the different quantities of drink to four dart players by using four dispensers 190. However, the dart game apparatus 100 is not limited thereto, and may provide a drink by using the various number of dispensers 190.

[0084] The plurality of dart game apparatuses 100 may provide drinks to a plurality of players playing at a remote distance by using the plurality of dispensers 190. For example, the plurality of dart game apparatuses 100 may provide the dart game to a player located in Seoul and a player located in New York, and the plurality of dart game apparatuses 100 may provide a drink to each player by using the plurality of dispensers 190 according to a result of the game. However, the dart game apparatus 100 is not limited thereto, and the plurality of dart game apparatuses 100 may provide a drink to a dart game player by using the dispenser 190 by various schemes.

[0085] The drink supplied by the dispenser 190 may include a liquid which a person is capable of drinking. Particularly, the drink may include a non-alcoholic drink, an alcoholic drink, and a combination thereof. The non-alcoholic drink may include a soft drink, a nutritious drink,

a favorite drink, and a combination thereof. For example, the non-alcoholic drink may include coke, cider, coffee, milk, fruit juice, and a combination thereof. The alcoholic drink may include brewage, hard liquor, a mixed drink, and a combination thereof. For example, the alcoholic drink may include beer, soju, raw rice wine, wine, whiskey, brandy, rum, vodka, gin, sweet fruit wine, liqueur, medicinal liquor, and a combination thereof. However, the drink is not limited thereto, and the drink supplied by the dispenser 190 may include various drinks.

[0086] The dispenser body part 191 may be formed so as to support other constituent elements. For example, the dispenser body part may be formed so as to support other constituent elements included in the dispenser. For example, the dispenser body part 191 may be formed so as to support the cup receiving part 193 to an upper portion. However, the dispenser body part 191 is not limited thereto, and may be formed to support various constituent elements.

[0087] The dispenser body part 191 may be formed so as to fix the dispenser 190 to the dart game apparatus 100. For example, the dispenser body part 191 may be formed so as to removably fix the dispenser 190 to the dart game apparatus 100. Particularly, the dispenser body part 191 may be formed so as to fit the dispenser 190 into the dart game apparatus 100. Further, the dispenser body part 191 may be formed in a portion of the dart game apparatus so as to fix the dispenser 190 to the dart game apparatus 100. For example, the dispenser body part 191 may be formed in a lower space of the dart game apparatus 100. However, the dispenser body part 191 is not limited thereto, and may be formed in various forms.

[0088] The dispenser body part 191 may store a drink. For example, the dispenser body part 191 may store a drink injected from the outside. Particularly, the dispenser body part 191 may store a drink injected from the outside in an internal space. Further, the dispenser body part 191 may accommodate a container in which a drink is stored and store the drink. For example, the dispenser body part 191 may accommodate a capsule in which a drink is stored in an internal portion and store the drink. However, the dispenser body part 191 is not limited thereto, and the dispenser body part 191 may store a drink by various methods.

[0089] The drink discharging part 192 may supply the drink stored in the dispenser 1900 to a cup. For example, the drink discharging part 192 may supply the drink stored in the dispenser body part 191 to a cup. The drink discharging part 192 may pump the drink stored in the internal space of the dispenser body part 191 and supply the drink to a cup. Further, the drink discharging part 192 may receive a drink from the outside and supply the received drink to a cup. For example, the drink discharging part 192 may be connected to a drink storage container positioned outside and supply a drink to a cup. However, the drink discharging part 192 is not limited thereto, and may supply a drink by various methods.

[0090] The drink discharging part 192 may supply the drink to a cup by injecting the drink to the cup. For example, the drink discharging part 192 may supply the drink so that the drink flows to the cup. The drink discharging part 192 may supply the drink by positioning a pipe where the drink discharges at an entrance of the cup. Further, the drink discharging part 192 may supply the drink by injecting the drink from a lower portion of the cup. For example, the drink discharging part 192 may be connected to a device which enables the drink to pass through a lower portion of the cup to supply the drink. However, the drink discharging part 192 is not limited thereto, and may supply a drink by various methods.

[0091] In the exemplary embodiment of the present disclosure, the drink discharging part 192 may supply the drink from the lower portion of the cup received in the cup receiving part. For example, the drink discharging part 192 may be connected to the device which enables the drink to pass through the lower portion of the cup received in the cup receiving part to supply the drink. Particularly, when the cup is received in the cup receiving part, the drink discharging part 192 may supply the drink by opening a path formed in the device which enables the drink to pass through the lower portion of the cup. However, the drink discharging part 192 is not limited thereto, and may supply a drink by various methods.

[0092] The cup receiving part 193 may receive a cup. For example, the cup receiving part 193 may be formed in the dispenser body part 191 to receive a cup. Particularly, the cup receiving part 193 may be formed in the dispenser body part 191 in a form of a recess, so that a cup may be fitted to the cup receiving part 193. As another example, the cup receiving part 193 may be formed in a form of a holder by which a cup is fixable in the dispenser body part 191 to receive the cup. As another example, the cup receiving part 193 may be formed in a flat surface on an upper portion of the dispenser body part to receive a cup. As another example, the cup receiving part 193 may be formed inside the dispenser body part 191 to receive a cup. However, the cup receiving part 193 is not limited thereto, and may be formed in various forms to receive a cup.

[0093] In the exemplary embodiment of the present disclosure, the dispenser lighting unit 194 illuminates a cup. For example, the dispenser lighting unit 194 may illuminate a cup by using a light source. Particularly, the dispenser lighting unit 194 may illuminate a cup by using a light source formed to head the cup. As another example, the dispenser lighting unit 194 may illuminate a cup by reflecting light emitted from a light source. However, the dispenser lighting unit 194 is not limited thereto, and may illuminate a cup by various schemes.

[0094] In the exemplary embodiment of the present disclosure, the dispenser lighting unit 194 may illuminate a lower portion of the cup received in the cup receiving part. Particularly, the dispenser lighting unit 194 may illuminate the lower portion of the cup received in the cup receiving part to generate a visual effect. For example,

the dispenser lighting unit 194 may illuminate the lower portion of the cup received in the cup receiving part and may make a liquid contained in the cup emit light. Further, the dispenser lighting unit 194 may illuminate the lower portion of the cup received in the cup receiving part to adjust an intensity of illumination of light emitted by a liquid contained in the cup. However, the dispenser lighting unit 194 is not limited thereto, and may generate various visual effects by illustrating a cup in various directions.

[0095] In the exemplary embodiment of the present disclosure, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player. For example, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player in order to display a player who will drink a drink. Particularly, when a first player to which a red color is allocated among the plurality of dart game players records the lowest score, the dispenser lighting unit 194 may emit light by using the red color. However, the dispenser lighting unit 194 is not limited thereto, and may emit light by various methods.

[0096] The controller 200 generally controls the general operation of the dart game apparatus 100. For example, the dart game collects a score detected through the sensing unit 120 for each game participant, transceives the collected scores with another dart game apparatus 100 connected via the network, and records a game win/lose record, a score, and the like according to the collection result. The controller 200 may perform pattern recognizing processing which is capable of recognizing a motion input, a writing input, and the like performed on the touch screen or the camera as a character or an image. Further, the controller may perform speech recognition by using a speech-to-text (STT) function which is capable of recognizing a voice input via the microphone as a character. Further, the controller 200 may progress the game by processing the user log-in based on the dart game start authorization information of the dart game server 300. Further, the controller 200 may read the optical code recognized by the camera unit 150a and recognize the information included in the optical code.

[0097] As illustrated in FIG. 2, the controller 200 is capable of communicating with all of the other components, thereby organically controlling the operations.

[0098] In the exemplary embodiment of the present disclosure, the controller 200 may control the operation of the dispenser 190. Particularly, the controller 200 may control the operations of the constituent elements included in the dispenser 190. For example, the controller 200 may control the drink discharging part 192 to supply a drink to a cup. As another example, the controller 200 may control the dispenser lighting unit 194 to illuminate a cup. However, the controller 200 is not limited thereto, and may control the operation of the dispenser 190 by various schemes.

[0099] In the exemplary embodiment of the present disclosure, when a dart pin hits a position of a predetermined score region among the plurality of score regions, the controller 200 may permit the dispenser 190 to supply a drink to a cup.

[0100] Particularly, when a dart pin hits a position of a predetermined score region among the plurality of score regions according to the game scheme, the controller 200 may permit the dispenser 190 to supply a drink to a cup. For example, when the game scheme is a count-up and the dart pin hits a bull score area, the controller 200 may permit the dispenser 190 to supply a drink to a cup. As another example, when the game scheme is a cricket and a score region, which is marked with 20 points and is hit by a first player three times, is hit by a second player three times, the controller 200 may permit the dispenser 190 to supply a drink to a cup. As another example, when a score region marked with 10 points is determined by a penalty score region by a player and a dart pin hits the score region marked with 10 points, the controller 200 may permit the dispenser 190 to supply a drink to a cup. As another example, when a dart pin hits a score region marked with the highest point during the current progress of the dart game, the controller 200 may permit the dispenser 190 to supply a drink to a cup. However, the controller 200 is not limited thereto, and may permit the dispenser 190 to supply a drink to a cup by various schemes.

[0101] In the exemplary embodiment of the present disclosure, when the controller 200 determines whether a predetermined event is generated at least partially based on the progress information of the currently progressing dart game, and when the predetermined event is generated, the controller 200 may control the dispenser 190 to supply a drink to the cup based on the generated event.

[0102] Particularly, the progress information of the currently progressing dart game may include information related to the dart game. For example, the dart game progress information may include a dart game scheme, a dart game progress round, score information about the plurality of dart game players, a relation between the score information about the plurality of dart game players (for example, a rank), a victory or a defeat of the dart game, the highest score recorded during the dart game, and the like. However, the dart game progress information is not limited thereto, and may include various information.

[0103] The controller 200 may determine whether the predetermined event is generated at least partially based on the progress information about the currently progressing dart game. For example, in the case where the highest score recorded by the dart game player during the progress of the dart game is 50 points, when the sensing unit 120 detects a hit location of the dart pin obtaining 60 points, the controller 200 may determine that a highest score update event is generated. As another example, in the case where score information of the first player is 310 and score information of the second player is 270 during the progress of the dart game, when the sensing

unit 120 detects the dart pin thrown by the second player in a score region marked with 60 points, the controller 200 may determine that a score reversal event is generated. However, the controller 200 is not limited thereto, and may determine whether the predetermined event is generated by various schemes.

[0104] When the predetermined event is generated, the controller 200 may control the dispenser 190 so as to supply a drink to the cup based on the generated event. Particularly, when the predetermined event is generated, the controller 200 may control the operation of supplying, by the dispenser 190, a drink to the cup according to contents of the generated event. For example, when the score reversal event is generated, the controller 200 may control the drink discharging part 192 included in the dispenser 190 so as to supply a drink to a cup of the player who succeeds in the score reversal. As another example, when the dart game reaches a predetermined round (for example, the fourth round among the eight rounds of the game), the controller 200 may control the drink discharging part 192 included in the dispenser 190 so as to fill the cup with a drink by a half. However, the controller 200 is not limited thereto, and may control the dispenser 190 by various schemes.

[0105] In the exemplary embodiment of the present disclosure, the controller 200 may adjust the amount of drink which the dispenser 190 supplies to the cup based on the generated event. Particularly, the controller 200 may adjust the amount of drink which the dispenser 190 supplies to the cup according to the contents of the generated event. For example, the controller 200 may adjust the amount of drink which the dispenser 190 supplies to the cup according to the obtained score. For example, the controller 200 may control the dispenser 190 so as to supply a drink of 30 cc when the obtained score is 30 points, and so as to supply a drink of 60 cc when the obtained score is 60 points. As another example, when the score reversal event is generated, the controller 200 may adjust the amount of drink supplied to the cup up to two times the existing amount of drink supplied. However, the controller 200 is not limited thereto, and may adjust the amount of drink which the dispenser 190 supplies to the cup by various schemes.

[0106] In the exemplary embodiment of the present disclosure, the predetermined event may include the case where the dart game reaches the predetermined round. Particularly, the predetermined event may include the case where the dart game reaches a specific round of the dart game. For example, the predetermined event may include the case where the dart game reaches the fourth round among the total of eight rounds. Further, the predetermined event may include the case where the dart game reaches a round in which a victory or a defeat of the dart game may be determined. However, the predetermined event is not limited thereto, and may include the reach to the variously determined rounds.

[0107] In the exemplary embodiment of the present disclosure, the predetermined event may include the case where a victory or a defeat of the dart game is determined. For example, the predetermined event may include the case where a victory or a defeat of the dart game is determined by a thrown dart pin. Particularly, in the case where the dart game scheme is a 501 count-up, the predetermined event may include the case where the throwing of the dart pin of which the obtained score is 501 is detected. As another example, when the dart game includes the total of eight rounds, the predetermined event may include the case where the throwing of the dart pin at which the eight rounds are terminated is detected. However, the predetermined event is not limited thereto, and may include the case where a victory or a defeat is determined by various schemes.

[0108] In the exemplary embodiment of the present disclosure, the predetermined event may include the case where the score reversal is generated. For example, the predetermined event may include the case where the score reversal is generated by a thrown dart pin. Particularly, in the case where a score of the first player is 200 points and a score of the second player is 220 points, the predetermined event may include the case where the dart pin thrown by the first player is detected in a score region marked with 30 points. However, the predetermined event is not limited thereto, and may include the case where the score reversal is generated by various schemes.

[0109] In the exemplary embodiment of the present disclosure, the predetermined event may include the case where the score of the dart game player exceeds the personal highest score of the dart game player. For example, the predetermined event may include the case where the score of the dart game player exceeds the personal highest score by a thrown dart pin. Particularly, in the case where the personal highest score of the first player is 300 points, the predetermined event may include the case where the score of the first player exceeds 300 by a thrown dart pin. However, the predetermined event is not limited thereto, and may include the case where the score of the dart game player exceeds the personal highest score of the dart game player by various schemes.

[0110] In the exemplary embodiment of the present disclosure, the predetermined event may include the case where the number of times of the play continuously performed by the dart game player is equal to or larger than the predetermined number of times. Particularly, the predetermined event may include the case where the number of times of the play of the game performed by the dart game player reaches or exceeds the predetermined number of times. For example, when the predetermined number of times is five, the predetermined event may include the case where the dart game player continuously plays five games. However, the predetermined event is not limited thereto, and may include the case where the dart game player performs the various numbers of times of the play of the game by the various schemes. For example, the predetermined event may

include the case where the total number of times of the play of the game performed by the dart game player is equal to or larger than the predetermined number of times.

[0111] In the exemplary embodiment of the present disclosure, when the predetermined event is generated, the controller 200 may control the dispenser lighting unit 194 so as to illuminate a cup received in the cup receiving part based on the generated event. Particularly, when the predetermined event is generated, the controller 200 may control the dispenser lighting unit 194 so as to illuminate a cup received in the cup receiving part according to the contents of the generated event. For example, when the reversal event of the score information is generated, the controller 200 may control the dispenser lighting unit 194 so as to illuminate a cup received in the cup receiving part. In this case, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player. For example, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player so as to identify the dart game player. As one example, when a color allocated to the first player of which the game is turned around is a red color, the dispenser lighting unit 194 may emit light by using the red color. As another example, when the dart game reaches a predetermined round (for example, the fourth round among the eight rounds of the game), the controller 200 may control the dispenser lighting unit 194 so as to illuminate a cup received in the cup receiving part. However, the controller 200 is not limited thereto, and may control the dispenser lighting unit 194 so as to illuminate a cup received in the cup receiving part by various schemes.

[0112] In the exemplary embodiment of the present disclosure, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player. For example, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player in order to display a player who is to drink a drink by the controller 200. Particularly, when the first player to which a red color is allocated among the plurality of dart game players records the lowest score, the dispenser lighting unit 194 may emit light by using the red color. However, the dispenser lighting unit 194 is not limited thereto, and may emit light by various methods.

[0113] In the exemplary embodiment of the present disclosure, when a predetermined event is generated, the controller 200 may control the sound output unit 141 based on the generated event. For example, when a predetermined event is generated, the controller 200 may control the sound output unit 141 according to contents of the generated event. Particularly, when a reversal event of the score information is generated, the controller 200 may control the sound output unit 141 so as to generate a sound effect of inducing a player to drink a drink. For example, when a score of the second player exceeds a score of the first player, the controller 200 may control the sound output unit 141 so as to generate a sound effect indicating "does the first player enjoy to drink?". As another example, when a victory or a defeat is determined, the controller 200 may control the sound output unit 141 so as to generate a sound effect based on the victory or the defeat. For example, when a victory or a defeat is determined, the controller 200 may control the sound output unit 141 so as to generate a sound effect cheering "Drink!! Drink!!". However, the controller 200 is not limited thereto, and may control the sound output unit 141 by various methods.

[0114] FIG. 3 is a diagram for describing the dispenser 190 related to the exemplary embodiment of the present disclosure.

[0115] In the exemplary embodiment of the present disclosure, the dart game apparatus 100 may include the dispenser 190 which supplies a drink to a cup based on a hit location of a dart pin.

[0116] The dispenser 190 may include the dispenser body part 191, the drink discharging part 192, the cup receiving part 193, and the dispenser lighting unit 194. The constituent elements of the dispenser 190 are not essential, so that the dart game apparatus including more constituent elements or less constituent elements may also be implemented.

[0117] The dispenser 190 may be combined with the dart game apparatus 100. Particularly, the dispenser 190 may be formed at a portion of the dart game apparatus. For example, the dispenser 190 may be formed in a front surface of the dart game apparatus 100. Further, the dispenser 190 may be removably combined to the dart game apparatus 100. For example, the dispenser 190 may be removably fitted to a lateral surface of the dart game apparatus. Further, the dispenser 190 may be separately formed from the dart game apparatus 100. When the dispenser 190 is formed outside the dart game apparatus 100, the dispenser 190 may be connected to the network connecting unit 160 and be controlled by the controller 200. However, the dispenser 190 is not limited thereto, and may be formed in various schemes.

[0118] The dart game apparatus 100 may include one or more dispensers 190. According to the exemplary embodiment, the dart game apparatus 100 may include one dispenser 190. The dart game apparatus 100 may provide a drink to a plurality of players by using one dispenser 190. As another exemplary embodiment, the dart game apparatus 100 may include a plurality of dispensers 190. The dart game apparatus may provide a drink to a plurality of players by using the plurality of dispensers 190. For example, the dart game apparatus 100 may include the dispensers 190 corresponding to the number corresponding to the maximum number of players who are capable of concurrently playing. When the number of maximum players who are capable of concurrently playing is four, the dart game apparatus may provide different quantities of drinks to four dart players by using four dispensers 190. However, the dart game apparatus 100 is not limited thereto, and may provide a drink by using the various number of dispensers 190.

[0119] The plurality of dart game apparatuses 100 may provide drinks to a plurality of players playing at a remote distance by using the plurality of dispensers 190. For example, the plurality of dart game apparatuses 100 may provide the dart game to a player located in Seoul and a player located in New York, and the plurality of dart game apparatuses 100 may provide a drink to each player by using the plurality of dispensers 190 according to a result of the game. However, the dart game apparatus 100 is not limited thereto, and the plurality of dart game apparatuses 100 may provide a drink to a dart game player by using the dispenser 190 by various schemes.

[0120] The drink supplied by the dispenser 190 may include a liquid which a person is capable of drinking. Particularly, the drink may include a non-alcoholic drink, an alcoholic drink, and a combination thereof. The non-alcoholic drink may include a soft drink, a nutritious drink, a favorite drink, and a combination thereof. For example, the non-alcoholic drink may include coke, cider, coffee, milk, fruit juice, and a combination thereof. The alcoholic drink may include brewage, hard liquor, a mixed drink, and a combination thereof. For example, the alcoholic drink may include beer, soju, raw rice wine, wine, whiskey, brandy, rum, vodka, gin, sweet fruit wine, liqueur, medicinal liquor, and a combination thereof. However, the drink is not limited thereto, and the drink supplied by the dispenser 190 may include various drinks.

[0121] The dispenser body part 191 may be formed so as to support other constituent elements. For example, the dispenser body part may be formed so as to support other constituent elements included in the dispenser. For example, the dispenser body part 191 may be formed so as to support the cup receiving part 193 to an upper portion. However, the dispenser body part 191 is not limited thereto, and may be formed to support various constituent elements.

[0122] The dispenser body part 191 may be formed so as to fix the dispenser 190 to the dart game apparatus 100. For example, the dispenser body part 191 may be formed so as to removably fix the dispenser 190 to the dart game apparatus 100. Particularly, the dispenser body part 191 may be formed so as to fit the dispenser 190 into the dart game apparatus 100. Further, the dispenser body part 191 may be formed in a portion of the dart game apparatus so as to fix the dispenser 190 to the dart game apparatus 100. For example, the dispenser body part 191 may be formed in a lower space of the dart game apparatus 100. However, the dispenser body part 191 is not limited thereto, and may be formed in various forms.

[0123] The dispenser body part 191 may store a drink. For example, the dispenser body part 191 may store a drink injected from the outside. Particularly, the dispenser body part 191 may store a drink injected from the outside in an internal space. Further, the dispenser body part 191 may accommodate a container in which a drink is stored and store the drink. For example, the dispenser body part 191 may accommodate a capsule in which a drink is stored in an internal portion and store the drink. However, the dispenser body part 191 is not limited thereto, and the dispenser body part 191 may store a drink by various methods.

[0124] The drink discharging part 192 may supply the drink stored in the dispenser 190 to a cup. For example, the drink discharging part 192 may supply the drink stored in the dispenser body part 191 to a cup. The drink discharging part 192 may pump the drink stored in the internal space of the dispenser body part 191 and supply the drink to a cup. Further, the drink discharging part 192 may receive a drink from the outside and supply the received drink to a cup. For example, the drink discharging part 192 may be connected to a drink storage container positioned outside and supply a drink to a cup. However, the drink discharging part 192 is not limited thereto, and may supply a drink by various methods.

[0125] The drink discharging part 192 may supply the drink to a cup by injecting the drink to the cup. For example, the drink discharging part 192 may supply the drink so that the drink flows to the cup. The drink discharging part 192 may supply the drink by positioning a pipe through the drink flows out at an entrance of the cup. Further, the drink discharging part 192 may supply the drink by injecting the drink from a lower portion of the cup. For example, the drink discharging part 192 may be connected to a device which enables the drink to pass through a lower portion of the cup to supply the drink. However, the drink discharging part 192 is not limited thereto, and may supply a drink by various methods.

[0126] In the exemplary embodiment of the present disclosure, the drink discharging part 192 may supply the drink from the lower portion of the cup received in the cup receiving part. For example, the drink discharging part 192 may be connected to the device which enables the drink to pass through the lower portion of the cup received in the cup receiving part to supply the drink. Particularly, when the cup is received in the cup receiving part, the drink discharging part 192 may supply the drink by opening a path formed in the device which enables the drink to pass through the lower portion of the cup. However, the drink discharging part 192 is not limited thereto, and may supply a drink by various methods.

[0127] The cup receiving part 193 may receive a cup. For example, the cup receiving part 193 may be formed in the dispenser body part 191 to receive a cup. Particularly, the cup receiving part 193 may be formed in the dispenser body part 191 in a form of a recess, so that a cup may be fitted to the cup receiving part 193. As another example, the cup receiving part 193 may be formed in a form of a holder by which a cup is fixable in the dispenser body part 191 to receive the cup. As another example, the cup receiving part 193 may be formed in a flat surface on an upper portion of the dispenser body part to receive a cup. As another example, the cup receiving part 193 may be formed inside the dispenser body part 191 to receive a cup. However, the cup receiving part 193 is not limited thereto, and may be formed in various forms to

receive a cup.

[0128] In the exemplary embodiment of the present disclosure, the dispenser lighting unit 194 may illuminate a cup. For example, the dispenser lighting unit 194 may illuminate a cup by using a light source. Particularly, the dispenser lighting unit 194 may illuminate a cup by using a light source formed to head the cup. As another example, the dispenser lighting unit 194 may illuminate a cup by reflecting light emitted from a light source. However, the dispenser lighting unit 194 is not limited thereto, and may illuminate a cup by various schemes.

[0129] In the exemplary embodiment of the present disclosure, the dispenser lighting unit 194 may illuminate a lower portion of the cup received in the cup receiving part. Particularly, the dispenser lighting unit 194 may illuminate lower portion of the cup received in the cup receiving part to generate a visual effect. For example, the dispenser lighting unit 194 may illuminate the lower portion of the cup received in the cup receiving part and may make a liquid contained in the cup emit light. Further, the dispenser lighting unit 194 may illuminate the lower portion of the cup received in the cup receiving part to adjust an intensity of illumination of light emitted by a liquid contained in the cup. However, the dispenser lighting unit 194 is not limited thereto, and may generate various visual effects by illuminating a cup in various directions.

[0130] In the exemplary embodiment of the present disclosure, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player. For example, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player in order to display a player who will drink a drink. Particularly, when a first player to which a red color is allocated among the plurality of dart game players records the lowest score, the dispenser lighting unit 194 may emit light by using the red color. However, the dispenser lighting unit 194 is not limited thereto, and may emit light by various methods.

[0131] The controller 200 generally controls the general operation of the dart game apparatus 100. For example, the dart game collects a score detected through the sensing unit 120 for each game participant, transceives the collected scores with another dart game apparatus 100 connected via the network, and records a game win/lose record, a score, and the like according to the collection result. The controller 200 may perform pattern recognizing processing which is capable of recognizing a motion input, a writing input, and the like performed on the touch screen or the camera as a character or an image. Further, the controller may perform speech recognition by using a speech-to-text (STT) function which is capable of recognizing a voice input via the microphone as a character. Further, the controller 200 may progress the game by processing the user log-in based on the dart game start authorization information of the dart game server 300. Further, the controller 200 may read the optical code recognized by the camera unit 150a and recognize the information included in the optical code.

[0132] As illustrated in FIG. 2, the controller 200 is capable of communicating with all of the other components, thereby organically controlling the operations.

[0133] In the exemplary embodiment of the present disclosure, the controller 200 may control the operation of the dispenser 190. Particularly, the controller 200 may control the operations of the constituent elements included in the dispenser 190. For example, the controller 200 may control the drink discharging part 192 to supply a drink to a cup. As another example, the controller 200 may control the dispenser lighting unit 194 to illuminate a cup. However, the controller 200 is not limited thereto, and may control the operation of the dispenser 190 by various schemes.

[0134] In the exemplary embodiment of the present disclosure, when a dart pin hits a position of a predetermined score region among the plurality of score regions, the controller 200 may permit the dispenser 190 to supply a drink to a cup.

[0135] Particularly, when a dart pin hits a position of a predetermined score region among the plurality of score regions according to the game scheme, the controller 200 may permit the dispenser 190 to supply a drink to a cup. For example, when the game scheme is a count-up, and the dart pin hits a bull score area, the controller 200 may permit the dispenser 190 to supply a drink to a cup. As another example, when the game scheme is a cricket game and a score region, which is marked with 20 points and is hit by a first player three times, is hit by a second player three times, the controller 200 may permit the dispenser 190 to supply a drink to a cup. As another example, when a score region marked with 10 points is determined by a penalty score region by a player and a dart pin hits the score region marked with 10 points, the controller 200 may permit the dispenser 190 to supply a drink to a cup. As another example, when a dart pin hits a score region marked with the highest point during the current progress of the dart game, the controller 200 may permit the dispenser 190 to supply a drink to a cup. However, the controller 200 is not limited thereto, and may permit the dispenser 190 to supply a drink to a cup by various schemes.

[0136] In the exemplary embodiment of the present disclosure, when the controller 200 determines whether a predetermined event is generated at least partially based on the progress information of the currently progressing dart game, and when the predetermined event is generated, the controller 200 may control the dispenser 190 to supply a drink to the cup based on the generated event.

[0137] Particularly, the progress information of the currently progressing dart game may include information related to the dart game. For example, the dart game progress information may include a dart game scheme, a dart game progress round, score information about the plurality of dart game players, a relation between the score information about the plurality of dart game players

(for example, a rank), a victory or a defeat of the dart game, the highest score recorded during the dart game, and the like. However, the dart game progress information is not limited thereto, and may include various information.

[0138] The controller 200 may determine whether the predetermined event is generated at least partially based on the progress information about the currently progressing dart game. For example, in the case where the highest score recorded by the dart game player during the progress of the dart game is 50 points, when the sensing unit 120 detects a hit location of the dart pin obtaining 60 points, the controller 200 may determine whether a highest score update event is generated. As another example, in the case where score information of the first player is 310 and score information of the second player is 270 during the progress of the dart game, when the sensing unit 120 detects the dart pin thrown by the second player in a score region marked with 60 points, the controller 200 may determine that a score reversal event is generated. However, the controller 200 is not limited thereto, and may determine whether the predetermined event is generated by various schemes.

[0139] When the predetermined event is generated, the controller 200 may control the dispenser 190 so as to supply a drink to the cup based on the generated event. Particularly, when the predetermined event is generated, the controller 200 may control the operation of supplying, by the dispenser 190, a drink to the cup according to contents of the generated event. For example, when the score reversal event is generated, the controller 200 may control the drink discharging part 192 included in the dispenser 190 so as to supply a drink to a cup of the player who succeeds in the score reversal. As another example, when the dart game reaches a predetermined round (for example, the fourth round among the eight rounds of the game), the controller 200 may control the drink discharging part 192 included in the dispenser 190 so as to fill the cup with a drink by a half. However, the controller 200 is not limited thereto, and may control the dispenser 190 by various schemes.

[0140] In the exemplary embodiment of the present disclosure, the controller 200 may adjust the amount of drink which the dispenser 190 supplies to the cup based on the generated event. Particularly, the controller 200 may adjust the amount of drink which the dispenser 190 supplies to the cup according to the contents of the generated event. For example, the controller 200 may adjust the amount of drink which the dispenser 190 supplies to the cup according to the obtained score. For example, the controller 200 may control the dispenser 190 so as to supply a drink of 30 cc when the obtained score is 30 points, and so as to supply a drink of 60 cc when the obtained score is 60 points. As another example, when the score reversal event is generated, the controller 200 may adjust the amount of drink supplied to the cup up to two times the existing amount of the drink supplied. However, the controller 200 is not limited thereto, and may adjust the amount of drink which the dispenser 190 supplies to the cup by various schemes.

[0141] In the exemplary embodiment of the present disclosure, the predetermined event may include the case where the dart game reaches the predetermined round. Particularly, the predetermined event may include the case where the dart game reaches a specific round of the dart game. For example, the predetermined event may include the case where the dart game reaches the fourth round among the total of eight rounds. Further, the predetermined event may include the case where the dart game reaches a round in which a victory or a defeat of the dart game may be determined. However, the predetermined event is not limited thereto, and may include the reach to the variously determined rounds.

[0142] In the exemplary embodiment of the present disclosure, the predetermined event may include the case where a victory or a defeat of the dart game is determined. For example, the predetermined event may include the case where a victory or a defeat of the dart game is determined by a thrown dart pin. Particularly, in the case where the dart game scheme is a 501 count-up, the predetermined event may include the case where a throwing of the dart pin of which the obtained score is 501 is detected. As another example, when the dart game includes the total of eight rounds, the predetermined event may include the case where the throwing of the dart pin at which the eight rounds are terminated is detected. However, the predetermined event is not limited thereto, and may include the case where a victory or a defeat is determined by various schemes.

[0143] In the exemplary embodiment of the present disclosure, the predetermined event may include the case where the score reversal is generated. For example, the predetermined event may include the case where the score reversal is generated by a thrown dart pin. Particularly, in the case where a score of the first player is 200 points and a score of the second player is 220 points, the predetermined event may include the case where the dart pin thrown by the first player is detected in a score region marked with 30 points. However, the predetermined event is not limited thereto, and may include the case where the score reversal is generated by various schemes.

[0144] In the exemplary embodiment of the present disclosure, the predetermined event may include the case where the personal highest score of a dart game player is exceeded. For example, the predetermined event may include the case where the score of the dart game player exceeds the personal highest score of a dart game player by a thrown dart pin. Particularly, in the case where the personal highest score of the first player is 300 points, the predetermined event may include the case where the score of the first player exceeds 300 by a thrown dart pin. However, the predetermined event is not limited thereto, and may include the case where the score of the dart game player exceeds the personal highest score of the dart game player by various schemes.

[0145] In the exemplary embodiment of the present disclosure, the predetermined event may include the case where the number of times of the play continuously performed by the dart game player is equal to or larger than the predetermined number of times. Particularly, the predetermined event may include the case where the number of times of the play of the game continuously performed by the dart game player reaches or exceeds the predetermined number of times. For example, when the predetermined number of times is five, the predetermined event may include the case where the dart game player continuously plays five games. However, the predetermined event is not limited thereto, and may include the case where the dart game player performs the various numbers of times of the play of the game by the various schemes. For example, the predetermined event may include the case where the total number of times of the play of the game performed by the dart game player is equal to or larger than the predetermined number of times.

[0146] In the exemplary embodiment of the present disclosure, when the predetermined event is generated, the controller 200 may control the dispenser lighting unit 194 so as to illuminate a cup received in the cup receiving part based on the generated event. Particularly, when the predetermined event is generated, the controller 200 may control the dispenser lighting unit 194 so as to illuminate a cup received in the cup receiving part according to the contents of the generated event. For example, when the reversal event of the score information is generated, the controller 200 may control the dispenser lighting unit 194 so as to illuminate a cup received in the cup receiving part. In this case, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player. For example, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player so as to identify the dart game player. As one example, when a color allocated to the first player of which the player is turned around is a red color, the dispenser lighting unit 194 may emit light by using the red color. As another example, when the dart game reaches a predetermined round (for example, the fourth round among the eight rounds of the game), the controller 200 may control the dispenser lighting unit 194 so as to illuminate a cup received in the cup receiving part. However, the controller 200 is not limited thereto, and may control the dispenser lighting unit 194 so as to illuminate a cup received in the cup receiving part by various schemes.

[0147] In the exemplary embodiment of the present disclosure, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player. For example, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player in order to display a player who is to drink a drink by the controller 200. Particularly, when the first player to which a red color is allocated among the plurality of dart game players records the lowest score, the dispenser lighting unit 194 may emit light by using the red color. However, the dispenser lighting unit 194 is not limited thereto, and may emit light by various methods.

[0148] In the exemplary embodiment of the present disclosure, when a predetermined event is generated, the controller 200 may control the sound output unit 141 based on the generated event. For example, when a predetermined event is generated, the controller 200 may control the sound output unit 141 according to contents of the generated event. Particularly, when a reversal event of the score information is generated, the controller 200 may control the sound output unit 141 so as to generate a sound effect of inducing a player to drink a drink. For example, when a score of the second player exceeds a score of the first player, the controller 200 may control the sound output unit 141 so as to generate a sound effect indicating "does the first player enjoy to drink?". As another example, when a victory or a defeat is determined, the 00 may control the sound output unit 141 so as to generate a sound effect based on the victory or the defeat. For example, when a victory or a defeat is determined, the controller 200 may control the sound output unit 141 so as to generate a sound effect indicating that "Drink!! Drink!!. However, the controller 200 is not limited thereto, and may control the sound output unit 141 by various methods.

[0149] FIG. 4 is a perspective view of the dart game apparatus according to the exemplary embodiments of the present disclosure.

[0150] As illustrated in FIG. 4, the dispenser 190 may be combined to the dart game apparatus 100. Particularly, the dispenser 190 may be formed at a portion of the dart game apparatus. For example, the dispenser 190 may be formed in a front surface of the dart game apparatus 100. Further, the dispenser 190 may be removably combined to the dart game apparatus 100. For example, the dispenser 190 may be removably fitted to a lateral surface of the dart game apparatus.

[0151] The dart game apparatus 100 may include one or more dispensers 190. As an exemplary embodiment, the dart game apparatus 100 may include one dispenser 190 as illustrated in FIG. 6. As another exemplary embodiment, the dart game apparatus 100 may include a plurality of dispensers 190. When the dart game apparatus 100 includes the plurality of dispensers 190, the dart game apparatus 100 may provide the plurality of players with the different amounts of drink by using the plurality of dispensers 190. For example, the dart game apparatus may provide the player placed fourth among the four dart players with 50 cc of beer, provide the players placed second and third with 300 cc of beer, and provide the player placed first with 10 cc of beer by using four dispensers 190. However, the dart game apparatus 100 is not limited thereto, and may provide a drink by using the various number of dispensers 190.

[0152] FIG. 5 is another perspective view illustrating the dart game apparatus according to exemplary embodiments of the present disclosure.

[0153] As illustrated in FIG. 5, the dispenser 190 may be separately formed from the dart game apparatus 100. When the dispenser 190 is formed outside the dart game apparatus 100, the dispenser 190 may be connected to the network connecting unit 160 and be controlled by the controller 200. Further, the dispenser 190 may be removably combined to the dart game apparatus 100. For example, the dispenser 190 may be removably fitted to a lateral surface of the dart game apparatus. However, the dispenser 190 is not limited thereto, and may be formed in various schemes.

[0154] The dart game apparatus 100 may include one or more dispensers 190. According to the exemplary embodiment, the dart game apparatus 100 may include one dispenser 190. The dart game apparatus 100 may provide a drink to a plurality of players by using one dispenser 190. As another exemplary embodiment, the dart game apparatus 100 may include a plurality of dispensers 190. The dart game apparatus may provide a drink to a plurality of players by using the plurality of dispensers 190. For example, the dart game apparatus 100 may include the dispensers 190 corresponding to the number corresponding to the number of maximum players who are capable of concurrently playing. When the number of maximum players who are capable of concurrently playing is four, the dart game apparatus may provide the different quantities of drink to four dart players by using four dispensers 190. However, the dart game apparatus 100 is not limited thereto, and may provide a drink by using the various number of dispensers 190.

[0155] FIG. 6 is a diagram illustrating an example of a case where a predetermined event is generated according to exemplary embodiments of the present disclosure.

[0156] FIG. 6 is a diagram illustrating an example of a case where a reach to a predetermined round is considered as the generation of a predetermined event. As described above, the predetermined event may include various cases, and the diagram of the example of FIG. 6 does not limit the scope of the present disclosure.

[0157] In the exemplary embodiment of the present disclosure, the controller 200 may determine whether a predetermined event is generated at least partially based on progress information of the currently progressing dart game. Further, when a predetermined event is generated, the controller 200 may control the dispenser 190 so as to supply a drink to the cup based on the generated event. For example, as illustrated in FIG. 6, the controller 200 may obtain a fact that the currently progressing round is the fourth round based on the progress information of the currently progressing dart game. Accordingly, the controller 200 may determine that the event reaching the fourth round among the total of eight rounds of the dart game is generated.

[0158] When a predetermined event is generated, the controller 200 may control the dispenser 190 so as to supply a drink to the cup based on the generated event. Particularly, when a predetermined event is generated, the controller 200 may control an operation of supplying, by the dispenser 190, a drink to the cup according to the contents of the generated event. For example, as illustrated in FIG. 6, when an event reaching the fourth round among the total of eight rounds of the dart game is generated, the controller 200 may control the drink discharging part 192 to inject the drink stored in the dispenser body part 191 to the cup received in the cup receiving part 193. However, the controller 200 is not limited thereto, and may control the dispenser 190 so as to supply a drink to the cup by various schemes.

[0159] In the exemplary embodiment of the present disclosure, the controller 200 may adjust the amount of drink which the dispenser 190 supplies to the cup based on the generated event. Particularly, the controller 200 may adjust the amount of drink which the dispenser 190 supplies to the cup according to the contents of the generated event. For example, the controller 200 may adjust the amount of drink which the dispenser 190 supplies to the cup according to the progressed round among the total rounds of the dart game. As an exemplary embodiment, as illustrated in FIG. 6, when a current round is the fourth round among the total of eight rounds, the controller 200 may supply a drink so that 4/8 (that is, a half of the cup) of the cup is filled with a drink. However, the controller 200 is not limited thereto, and may adjust the amount of drink which the dispenser 190 supplies to the cup by various methods.

[0160] In the exemplary embodiment of the present disclosure, when a predetermined event is generated, the controller 200 may control the sound output unit 141 based on the generated event. Particularly, when a predetermined event is generated, the controller 200 may control the sound output unit 141 based on the contents of the generated event. For example, the controller 200 may control the sound output unit 141 so as to generate a sound effect according to the progressed round among the total of rounds. As an exemplary embodiment, as illustrated in FIG. 6, when a current round is the fourth round among the total of eight rounds, the controller 200 may control the sound output unit 141 so as to generate a sound effect that emits "an alcoholic drink is being full[illegible]". However, the controller 200 is not limited thereto, and may control the sound output unit 141 by various methods.

[0161] FIG. 7 is a diagram illustrating another example of a case where a predetermined event is generated according to exemplary embodiments of the present disclosure.

[0162] FIG. 7 is a diagram illustrating an example for describing an exemplary embodiment in that a determination of a victory or a defeat of the dart game is considered as the generation of a predetermined event. As described above, the predetermined event may include various cases, and the diagram of the example of FIG. 7 does not limit the scope of the present invention.

[0163] In the exemplary embodiment of the present disclosure, the controller 200 may determine whether a

predetermined event is generated at least partially based on progress information of the currently progressing dart game. Further, when a predetermined event is generated, the controller 200 may control the dispenser 190 so as to supply a drink to the cup based on the generated event. For example, as illustrated in FIG. 7, the controller 200 may obtain a victory of the first player based on the progress information of the currently progressing dart game. Accordingly, the controller 200 may determine that the event in which a victory or a defeat of the dart game is determined is generated.

[0164] When the predetermined event is generated, the controller 200 may control the dispenser 190 so as to supply a drink to the cup based on the generated event. Particularly, when the predetermined event is generated, the controller 200 may control an operation of supplying, by the dispenser 190, a drink to the cup according to the contents of the generated event. For example, as illustrated in FIG. 7, when an event in which the first player wins is generated, the controller 200 may control the drink discharging part 192 to inject the drink stored in the dispenser body part 191 to the cup received in the cup receiving part 193. However, the controller 200 is not limited thereto, and may control the dispenser 190 to supply a drink to the cup by various methods.

[0165] In the exemplary embodiment of the present disclosure, the controller 200 may adjust the amount of drink which the dispenser 190 supplies to the cup based on the generated event. Particularly, the controller 200 may adjust the amount of drink which the dispenser 190 supplies to the cup according to the contents of the generated event. For example, when an event in which a victory or a defeat is determined is generated, the controller 200 may adjust the amount of drink which the dispenser 190 supplies to the cup. As an exemplary embodiment, as illustrated in FIG. 7, when an event in which the first player wins is generated, the controller 200 may adjust the amount of drink so that the cup is fully filled. However, the controller 200 is not limited thereto, and may adjust the amount of drink which the dispenser 190 supplies to the cup by various methods.

[0166] In the exemplary embodiment of the present disclosure, when a predetermined event is generated, the controller 200 may control the dispenser lighting unit 194 so as to illuminate the cup received in the cup receiving part 193 based on the generated event. Particularly, when a predetermined event is generated, the controller 200 may control the dispenser lighting unit 194 so as to illuminate the cup received in the cup receiving part according to the contents of the generated event. For example, when an event in which a victory or a defeat is determined is generated, the controller 200 may control the dispenser lighting unit 194 so as to illuminate the cup which a loser is to use for drink. In this case, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player. For example, the dispenser lighting unit 194 may emit light based on a color allocated to a dart game player so as to identify the dart game player. As an exemplary embodiment, when a color allocated to the defeated second player is a red color, the dispenser lighting unit 194 may emit light by using the red color. However, the controller 200 is not limited thereto, and may control the dispenser lighting unit 194 so as to illuminate the cup received in the cup receiving part by various methods.

[0167] In the exemplary embodiment of the present disclosure, when a predetermined event is generated, the controller 200 may control the sound output unit 141 based on the generated event. Particularly, when a predetermined event is generated, the controller 200 may control the sound output unit 141 based on the contents of the generated event. For example, when an event in which a victory or a defeat is determined is generated, the controller 200 may control the sound output unit 141 so as to generate a sound effect of inducing a player to drink a drink. As an exemplary embodiment, when an event in which the first player wins is generated, the controller 200 may control the sound output unit 141 so as to generate a sound effect cheering "Drink , Drink ". However, the controller 200 is not limited thereto, and may control the sound output unit 141 based on the generated event by various schemes.

[0168] Descriptions of the presented exemplary embodiments are provided so that those skilled in the art may use or carry out the present disclosure. Various modifications of the exemplary embodiments may be apparent to those skilled in the art, and general principles defined herein may be applied to other exemplary embodiments without departing from the scope of the present disclosure. Accordingly, the present disclosure is not limited to the exemplary embodiments suggested herein, and shall be interpreted within the broadest meaning range consistent to the principles and new characteristics suggested herein.

[Mode for Invention]

[0169] Related contents in the best mode for carrying out the present disclosure are described as above.

[Industrial Applicability]

[0170] The present disclosure relates to a dart game, and more particularly, to a dart game apparatus which provides a drink based on a hit location of a dart pin, and may improve an entertainment element of a dart game.

Claims

1. A dart game apparatus, comprising:

a dart target including a plurality of score regions;

a sensing unit configured to detect a hit location of a dart pin in the dart target;

a dispenser configured to supply a drink to a cup based on the hit location of the dart pin; and
a controller configured to control an operation of the dispenser.

2. The dart game apparatus of claim 1, wherein when the dart pin hits a position of a predetermined score region among the plurality of score regions, the controller permits the dispenser to supply a drink to the cup.

3. The dart game apparatus of claim 1, wherein the controller determines whether a predetermined event is generated at least partially based on progress information of a currently progressing dart game, and
when the predetermined event is generated, the controller controls the dispenser to supply a drink to the cup based on the generated event.

4. The dart game apparatus of claim 3, wherein the controller adjusts the amount of drink which the dispenser supplies to the cup based on the generated event.

5. The dart game apparatus of claim 3, wherein the predetermined event includes a case where the dart game reaches a predetermined round.

6. The dart game apparatus of claim 3, wherein the predetermined event includes a case where a victory or a defeat of the dart game is determined.

7. The dart game apparatus of claim 3, wherein the predetermined event includes a case where a score reversal is generated.

8. The dart game apparatus of claim 3, wherein the predetermined event includes a case where a score of a dart game player exceeds a personal highest score of the dart game player.

9. The dart game apparatus of claim 3, wherein the predetermined event includes a case where the number of times of continuous play performed by a dart game player is equal to or larger than a predetermined number of times.

10. The dart game apparatus of claim 3, wherein the dispenser includes a dispenser lighting unit, and
when the predetermined event is generated, the controller controls the dispenser lighting unit so as to illuminate a cup received in a cup receiving part based on the generated event.

11. The dart game apparatus of claim 10, wherein the dispenser lighting unit emits light based on a color allocated to a dart game player.

12. The dart game apparatus of claim 1, wherein the dispenser further includes a drink discharging part which supplies a drink from a lower portion of a cup received in a cup receiving part.

13. The dart game apparatus of claim 3, further comprising:

a sound output unit which generates a sound effect,
wherein when the predetermined event is generated, the controller controls the sound output unit based on the generated event.

Fig. 1

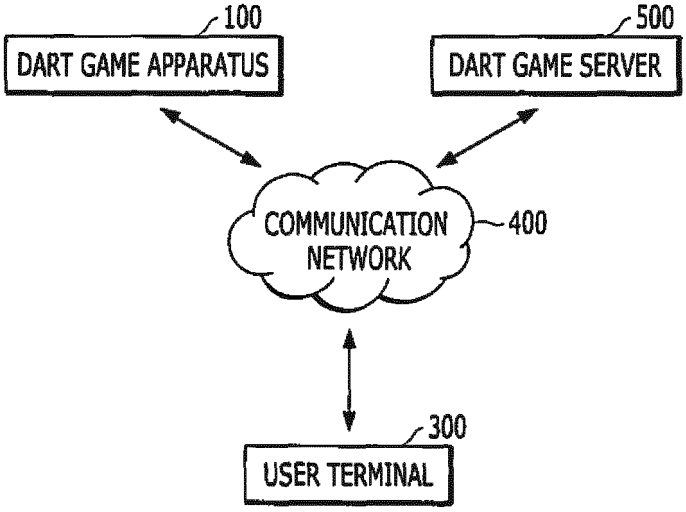

100
DART GAME APPARATUS
500
DART GAME SERVER
COMMUNICATION NETWORK
400
300
USER TERMINAL

Fig. 2

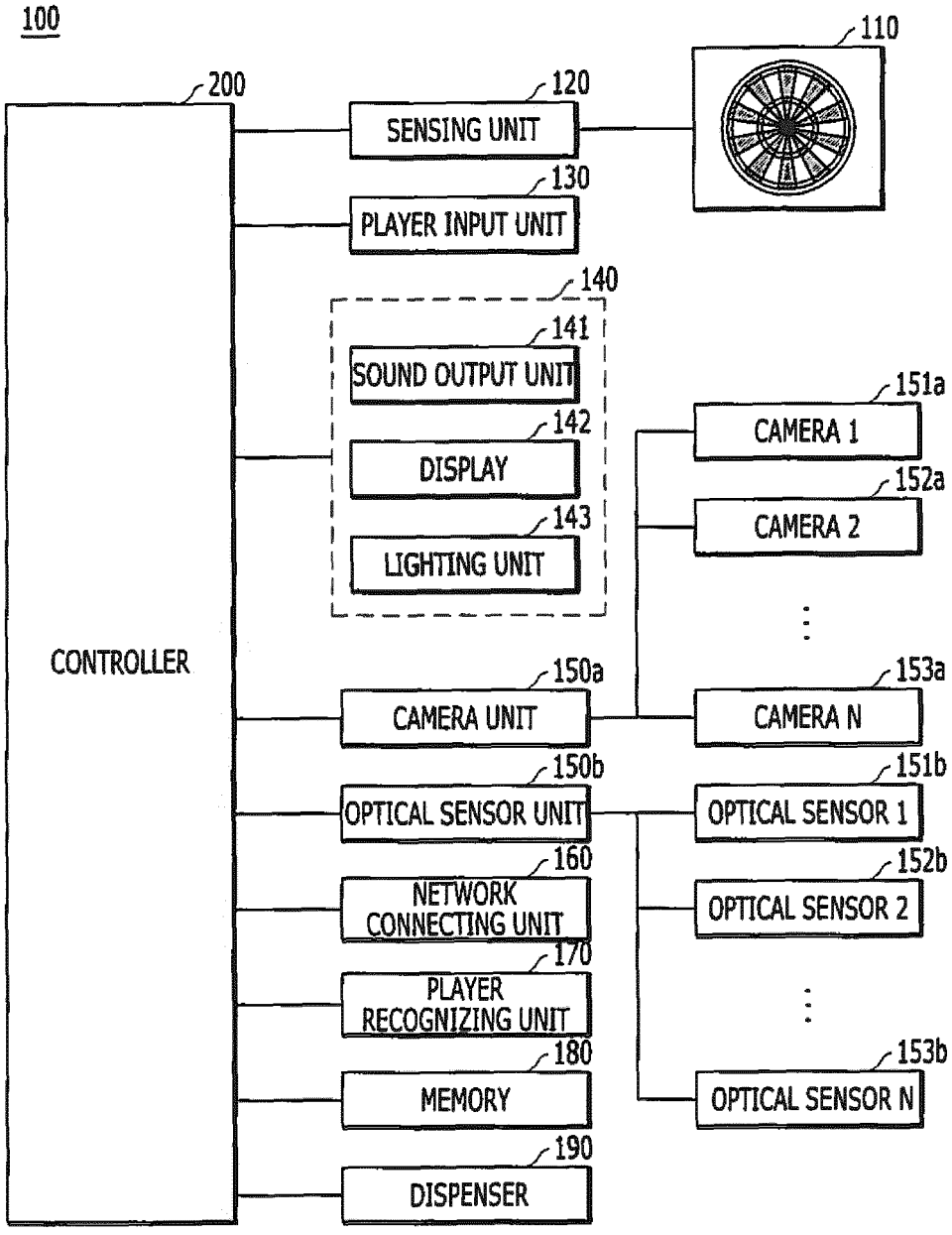

100
200
CONTROLLER
120
SENSING UNIT
110
130
PLAYER INPUT UNIT
140
141
SOUND OUTPUT UNIT
142
DISPLAY
143
LIGHTING UNIT
150a
CAMERA UNIT
150b
OPTICAL SENSOR UNIT
160
NETWORK CONNECTING UNIT
170
PLAYER RECOGNIZING UNIT
180
MEMORY
190
DISPENSER
151a
CAMERA 1
152a
CAMERA 2
153a
CAMERA N
151b
OPTICAL SENSOR 1
152b
OPTICAL SENSOR 2
153b
OPTICAL SENSOR N

Fig. 3

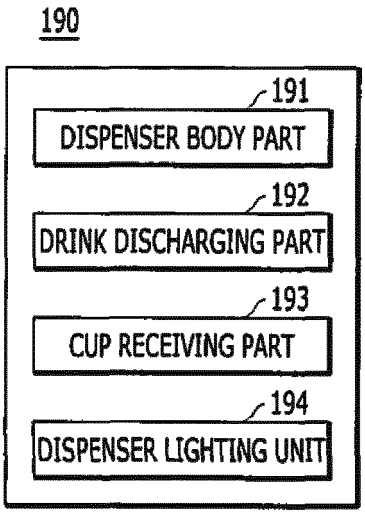

190
191
DISPENSER BODY PART
192
DRINK DISCHARGING PART
193
CUP RECEIVING PART
194
DISPENSER LIGHTING UNIT

Fig. 4

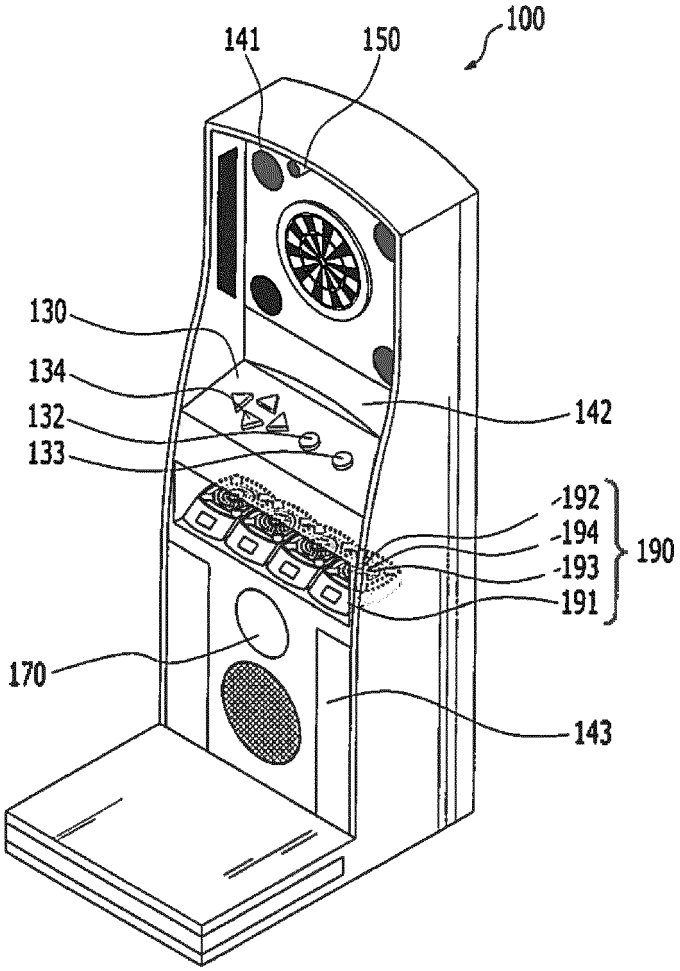


Fig. 5

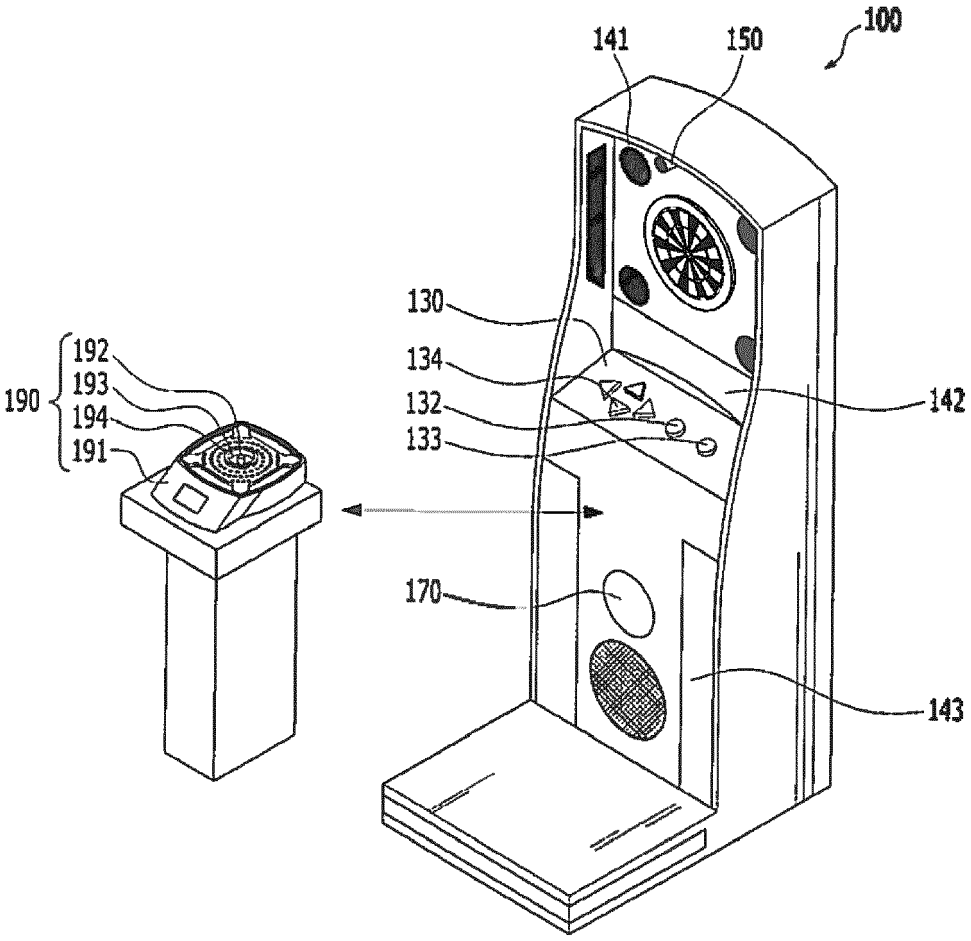


Fig. 6

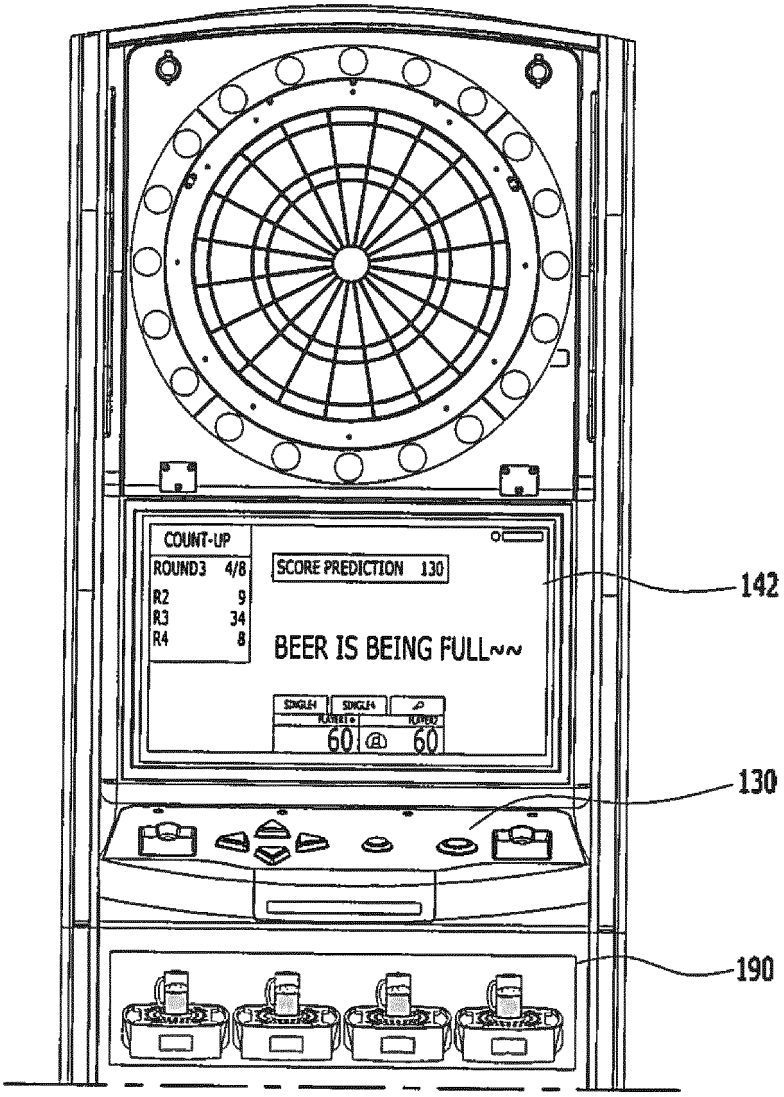
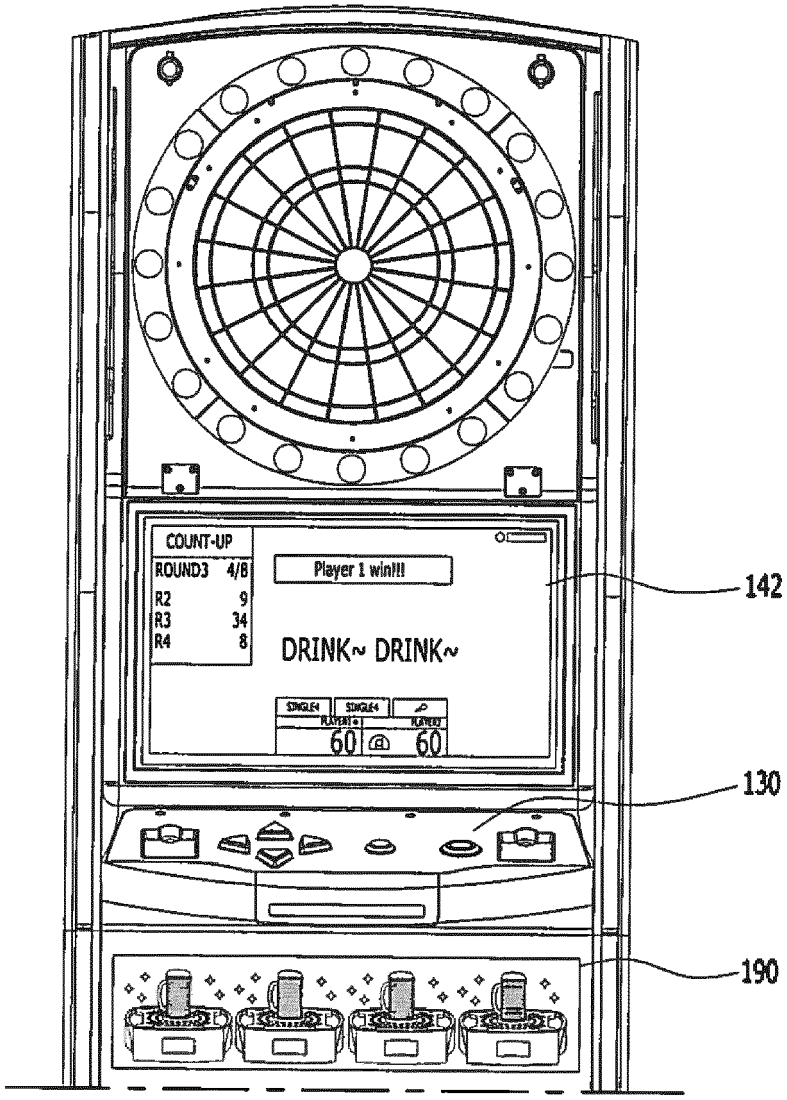

COUNT-UP
ROUND3 4/8
R2 9
R3 34
R4 8
SCORE PREDICTION 130
BEER IS BEING FULL
60 @ 60
142
130
190

Fig. 7


COUNT-UP
ROUND3 4/8
R2 9
R3 34
R4 8
Player 1 win!!!
DRINK~ DRINK~
60
60
142
130
190

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EUROPEAN SEARCH REPORT

Application Number
EP 17 21 1106

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A	US 2017/189810 A1 (HONG SANG UK [KR]) 6 July 2017 (2017-07-06) * paragraphs [0033] - [0039]; figures 1,2 * -----	1-13	INV. F41J3/00
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F41J
A63F
G07F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	6 July 2018	Seide, Stephan

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