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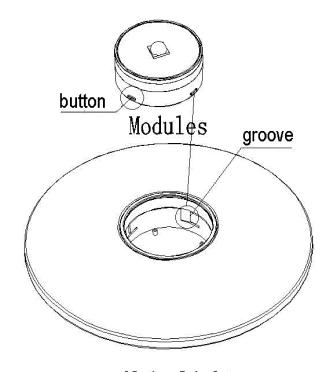
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(54) CEILING MULTIFUNCTIONAL MODULE ASSEMBLY

(57) The Utility Model release one of Multifunctional Ceiling Lamp, it includes the Lamp holder, the Module Fixed Seat above lamp holder, the lamp cover & several replaceable modules. And The practical needed function module will be replaced by the Module Fixed Seat.

The Utility Model with simple construction, with reasonable distribution inside, The Ceiling Lamp not only have several selectable alternative function module, to enlarge the Lamps' actual application lighting scope, such as Fill-in lighting, RGB Lighting, Bluetooth Speaker, Body Infrared Sensor and The Smog Alarm, but also have the illumination & other corresponding functions. And the Ceiling Lamp is space-saving since easy installation.



Main Light

Fig. 4

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Description

FIELD OF THE INVENTION

[0001] The utility model relates to lighting field and fire prevention, it is a easy mounting ceiling lamp relating to multiple purpose.

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BACKGROUND OF THE INVENTION

[0002] Ceiling lamp can be designed to have variety of light intensity. When design or choose lamps, those low light intensity lamps usually be chose because of some reason, but low intensity affect the vision effect when practical use. Buying another one surely strengthen the light but affect esthetic effect.

[0003] Multi-scene environment become necessary for modern people.

[0004] With the improvement of living quality, there is a great demands for better living environment. Simple white lamps already cannot meet the demands of people who with higher requirements. Despite improving the environment, installing another lamp affects the room esthetic effect seriously.

[0005] Ceiling lamp is a kind of common light, wall-hanging and ceiling audio and loudspeaker are widely used in conference hall, leisure facility and household arrangement. But ceiling lamp and audio must be installed separately, it's not convenient and occupy much space, particular in a room with drop ceiling, installing a ceiling audio looks not beautiful, and installing several ceiling lamp and audio is complex and makes ceiling looks not simple.

[0006] People usually forget to turn off the light when go in or go out the room temporarily, but sometime shortly going out become staying away. Coming back to turn off the light seems unreachable and they may forget the light, then the lamps will waste much electricity.

[0007] Main lamp usually installed in the center of a room, and so do the smoke detectors, and it's not a good idea to put them together.

[0008] To reach the above purpose, the utility model solution is to design a ceiling lamp involves main lamp and removable and replaceable functional modules.

SUMMARY OF THE INVENTION

[0009] The Utility Model release one of Multifunctional Ceiling Lamp, it includes the Lamp holder, the Module Fixed Seat above lamp holder, the lamp cover & several replaceable modules. And The practical needed function module will be replaced by the Module Fixed Seat.

[0010] The Utility Model with simple construction, with reasonable distribution inside, The Ceiling Lamp not only have several selectable alternative function module, to enlarge the Lamps' actual application lighting scope, such as Fill-in lighting, RGB Lighting, Bluetooth Speaker, Body Infrared Sensor and The Smog Alarm, but also have

the illumination & other corresponding functions. And the Ceiling Lamp is space-saving since easy installation.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011]

Fig. 1 shows main lighting part.

Fig. 2 shows module.

Fig. 3 shows main lighting part. Perspective view.

Fig. 4 shows main lighting module and module mounting.

Fig. 5 shows the preferred embodiments of mounting module types.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0012] The lamp include 1 main lighting part 2 fill-in lighting module 3 RGB lighting module 4 blue tooth speaker module 5 body induction module 6 Smog Alarm module 7 Multifunctional module 8 PC cover etc.

[0013] So it is still a complete lamp if assembly main lamp and PC cover without module. Without taking down the main lamp, each module could be installed to the main lamp and become a new function lamp. Each module could ne installed into the lamp by pinching and rotating and fixed by fixing structure inside the lamp. The module fixing structure in the utility model makes modules installation and removing very easy.

[0014] By above-mentioned structure, the utility model module will be installed into the center of the lamp, every module is removable and replaceable. The utility model is simple, inner structure distribution is rational, it combines lighting with other practical function well.

Modules can be

[0015]

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- 1. Fill-in lighting module
- 2. RGB lighting module
- 3. Bluetooth speaker module
- 4. Smog Alarm module
- 5. Body induction module
- 6. Multifunctional module

[0016] Modules 1. 2. 3. 4. 5. 6. can be installed in the centre of main lighting part. Firstly, aiming at the lamp body grooves with the modules' card buckle, then put the module into the centre of main lighting. Module fixed by main lighting with press the spin to the right, so combined to be a lamp with new function.

[0017] Add one new lamp base on the main lighting part to strengthen the light intensity; it is easier to control the illumination design of whole house when Fill-in Light coming.

RGB Lighting Module

[0018] Add one RGB light above the main lighting part to improve the environment atmosphere by adjusting the color lights.

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Bluetooth Speaker Module

[0019] Add one Bluetooth Speaker Module above the main lighting part, not only can be used as lamp, but also as Bluetooth speaker, meanwhile this kind of design make you enjoy the artistic music when lighting.

The Body Induction Module

[0020] Add one Human Body Sensor Module above the main lighting part, body sensor coordinate with ceiling lamp, the Lamps be more smarter when body sensor coming.

The Smog Alarm Module

[0021] Add one Smog Alarm Module above the main lighting part; smog induction will coordinate with main lamp to make sound or lighting alarm.

[0022] The ceiling lamp will increase the environmental safety when smog transducer coming.

The Multi-functional Module

[0023] Combining to be a module with one or more functions of above modules

[0024] The foregoing embodiments and drawings of the utility model is not limited to product form and style of ordinary skill in the art belongs to them any appropriate changes or modifications made, are to be regarded as not departing from the scope of the utility model patent.

Claims 40

A multi-purpose split mounting type ceiling lamp having:

main lighting part and replaceable module,

characterised in that

the said replaceable module can be fill-in lighting module

- 2. The multi-purpose split mounting type ceiling lamp according to claim 1 **characterised in that** the said replaceable module can be RGB lighting module.
- The multi-purpose split mounting type ceiling lamp according to claim 1 characterised in that the said replaceable module can be Bluetooth speaker module.

- 4. The multi-purpose split mounting type ceiling lamp according to claim 1 characterised in that the said replaceable module can be Smog Alarm module.
- 5. The multi-purpose split mounting type ceiling lamp according to claim 1 characterised in that the said replaceable module can be Body induction module.
- **6.** The multi-purpose split mounting type ceiling lamp according to claim 1 **characterised in that** the said replaceable module can be Multifunctional module.

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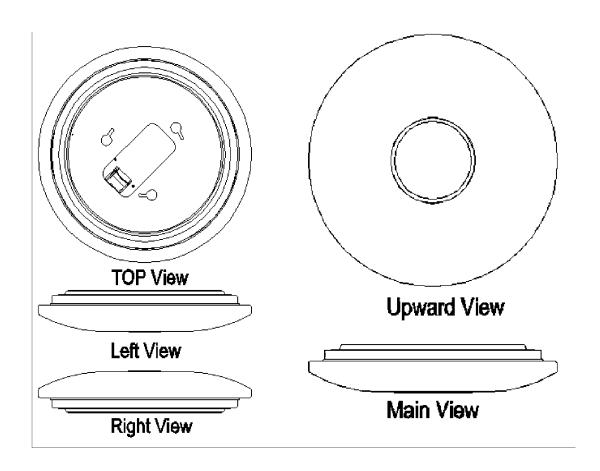
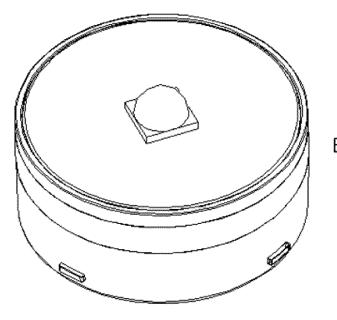
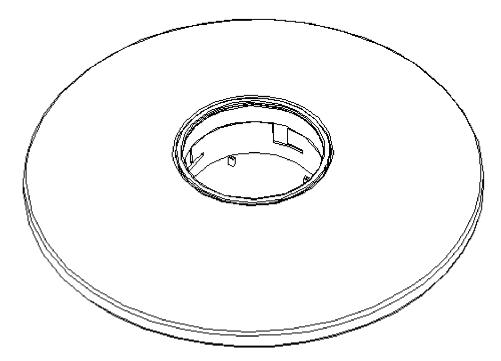


Fig. 1

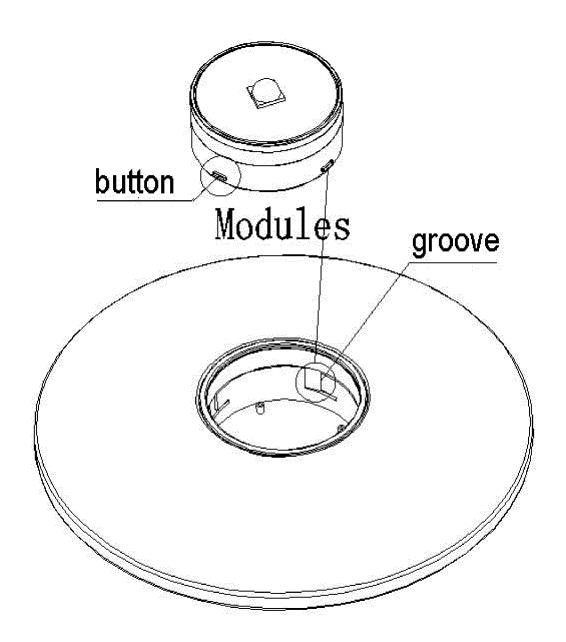


Fill-in lighting module
RGB lighting module
Bluetooth speaker module
Smog Alarm module
Body induction module
Multifunctional module

Fig. 2



Main Light
Fig. 3



Main Light

Fig. 4

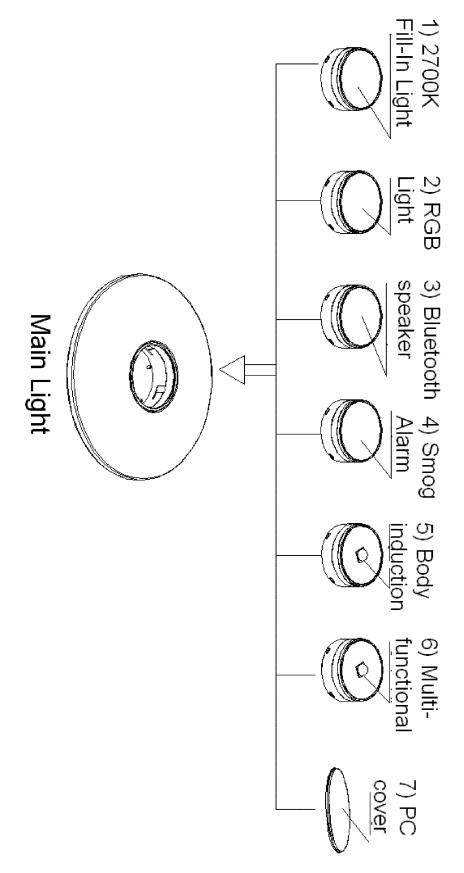


Fig. 5



EUROPEAN SEARCH REPORT

DOCUMENTS CONSIDERED TO BE RELEVANT

Application Number

EP 15 18 4975

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Category	Citation of document with in			Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Х	US 2013/039055 A1 (AL) 14 February 201 * the whole documen	WILSON GREGG 3 (2013-02-1		1-6	INV. F21V33/00 F21S8/04
Х	US 2014/049400 A1 (20 February 2014 (2 * paragraph [0015] figures 1-6 *	014-02-20)		1-6	ADD. F21V17/14 F21V113/00
Х	JP 2005 158363 A (T TECHNOLOGY) 16 June * the whole documen	2005 (2005-0		1-6	
Х	EP 2 792 945 A1 (S0 22 October 2014 (20 * paragraph [0046];	14-10-22)	•	1-6	
Х	EP 1 224 420 A1 (RE 24 July 2002 (2002- * page 1, paragraph figures 1-2 *	07-24)	,	1-6	TECHNICAL FIELDS SEARCHED (IPC)
X	JP 2013 025992 A (P 4 February 2013 (20 * the whole documen	13-02-04)	P)	1-6	F21V F21S F21Y
	The present search report has be place of search The Hague	Date of comp	claims oletion of the search oruary 2016	Thi	Examiner
X : part Y : part docu A : tech O : non	ATEGORY OF CITED DOCUMENTS cicularly relevant if taken alone cicularly relevant if combined with anothument of the same category nological background r-written disclosure rmediate document		T: theory or principl E: earlier patent do after the filing da D: document cited i L: document cited f	le underlying the cument, but publite te in the application or other reasons	invention shed on, or

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 15 18 4975

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

24-02-2016

		Patent document cited in search report		Publication date	Patent family member(s)		Publication date		
		US	2013039055	A1	14-02-2013	NONE			
5		US	2014049400	A1	20-02-2014	AU CN DK EP ES	2012238577 103688101 2694860 2694860 2527671	A T3 A1	14-11-2013 26-03-2014 12-01-2015 12-02-2014 28-01-2015
)						HR JP JP PT RU	P20141232 5847288 2014510981 2694860 2013148662	T1 B2 A E A	13-02-2015 20-01-2016 01-05-2014 14-01-2015 20-05-2015
5						SG SI SM US WO	194061 2694860 T201500034 2014049400 2012136847	T1 B A1	29-11-2013 27-02-2015 05-03-2015 20-02-2014 11-10-2012
)		JP	2005158363	A	16-06-2005	CN JP JP	1619214 4352230 2005158363	B2	25-05-2005 28-10-2009 16-06-2005
5		EP	2792945	A1	22-10-2014	CN EP JP US	104100860 2792945 2014207184 2014307471	A1 A	15-10-2014 22-10-2014 30-10-2014 16-10-2014
)		EP	1224420	A1	24-07-2002	AU DE EP WO	1134901 19949833 1224420 0129480	A1 A1	30-04-2001 26-04-2001 24-07-2002 26-04-2001
		JP	2013025992	Α	04-02-2013	NONE			
5									
)									
5	FORM P0459								

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