Title (en)

## SYSTEM FOR DETERMINING AND/OR MONITORING THE ORIENTATION OF OBJECTS

Title (de)

SYSTEM ZUR LAGEBESTIMMUNG UND/ODER -KONTROLLE VON GEGENSTÄNDEN

Title (fr)

SYSTÈME POUR LA DÉTERMINATION ET/OU LE CONTRÔLE DE LA POSITION D'OBJETS

Publication

## EP 2638411 A1 20130918 (DE)

Application

## EP 11793357 A 20111110

Priority

- DE 102010060526 A 20101112
- EP 2011069850 W 20111110

Abstract (en)

[origin: WO2012062862A1] The present invention relates to a system for determining the position and/or orientation of at least one radio-frequency transceiver (100) with respect to an object (10), wherein at least one radio-frequency transceiver (100) is arranged in a fixed position and orientation on or in the object (10), and a spatial position and/or orientation as well as an identification of a respectively transmitted radio-frequency transceiver (100) with respect to the object (10) and/or with respect to at least one predetermined reference point can be determined by means of at least one first receiving device, and a data structure is provided in a first memory device (36), which is connected to at least one data processing device (35), which data structure contains a partially virtual representation of the object (10), and the information relating to the position and/or orientation of the at least one radio-frequency transceiver (100) as well as the identification thereof are stored together with or linked to the virtual representation of the object (10) in the memory device (36), and the reference system of the virtual representation is defined with respect to the position and/or orientation of the at least one radio-frequency transceiver (100). The invention furthermore relates to a system for determining position and/or orientation and/ or for orientation monitoring of at least one object (10), wherein at least one radio-frequency transceiver (100) is arranged in a fixed position and orientation on or in the object (10), a spatial position and/or orientation as well as an identification of a respectively transmitting radio-frequency transceiver (100) of the at least one second receiving device and/or at least one predetermined reference point can be determined by means of at least one second receiving device, and a data structure is provided in a first memory device (36), which is connected to at least one data processing device (35), which data structure contains at least a partially virtual representation of the object (10), as well as information relating to the position and/or orientation of the at least one radio-frequency transceiver (100) with a predetermined identification, wherein the position and/or orientation of the at least one radio-frequency transceiver (100) with a predetermined identification defines the reference system of the virtual representation, and wherein the at least one data processing device (35) outputs information on the basis of the information, which is received from the second antenna signal processing device (91), relating to the position and/or orientation of the at least one radio-frequency transceiver (100), on the basis of which output information the absolute position and/or orientation of the object (10) can be determined.

IPC 8 full level

G01S 5/12 (2006.01); G01S 13/74 (2006.01); G01S 13/86 (2006.01)

CPC (source: EP US)

G01S 11/02 (2013.01 - US); G01S 13/74 (2013.01 - EP US); G01S 13/874 (2013.01 - EP US); G01S 5/0247 (2013.01 - EP US)

Citation (search report)

See references of WO 2012062862A1

Designated contracting state (EPC) AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

## DOCDB simple family (publication)

DE 102010060526 A1 20120516; CN 103201645 A 20130710; EP 2638411 A1 20130918; JP 2014500954 A 20140116; US 2013293410 A1 20131107; US 9322903 B2 20160426; WO 2012062862 A1 20120518

DOCDB simple family (application)

**DE 102010060526** A 20101112; CN 201180054476 A 20111110; EP 11793357 A 20111110; EP 2011069850 W 20111110; JP 2013538199 A 20111110; US 201113885060 A 20111110