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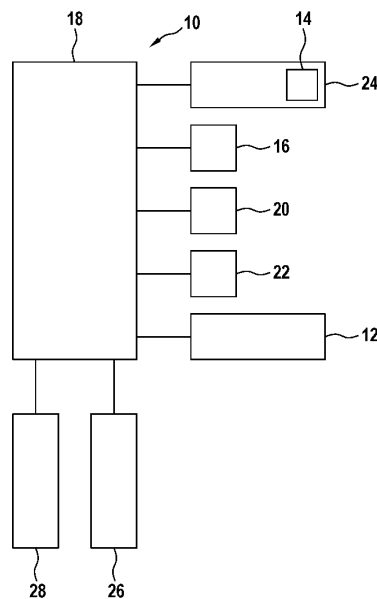
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(54) Title: SYSTEM FOR TRACKING REAL-TIME POSITIONS OF A MOVABLE SENSOR WITHIN A PATIENT'S BODY

Fig. 1



(57) Abstract: The present invention relates to a tracking system (10) comprising: an emitting device (12) configured to establish a measurement volume within at least a part of a patients body, the patients body having a median plane, a transverse plane, and a coronal plane; a movable sensor (14) which is movable within the measurement volume; a first reference sensor (16) establishing a global coordinate system within the measurement volume, the global coordinate system having an origin, an x-axis, a y-axis and a z-axis; and a controller (18). The controller (18) is configured to detect real-time positions of the movable sensor (14) within the global coordinate system, to set the origin of the global coordinate system as an anchor point in relation to the patients body, to span a first reference plane in direction of the x-axis and the z-axis being parallel to the median plane, to span a second reference plane in direction of the y-axis and the z-axis being parallel to the transverse plane, to span a third reference plane in direction of the x-axis and the y-axis being parallel to the coronal plane, and preferably to translate in parallel at least one of the first reference plane, the second reference plane and the third reference plane based on an expected movement path of the movable sensor.

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