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(54) Title: SYSTEM AND METHOD FOR NAVIGATING AN AUTONOMOUS ENTITY THROUGH A NAVIGATION SPACE IN REAL TIME

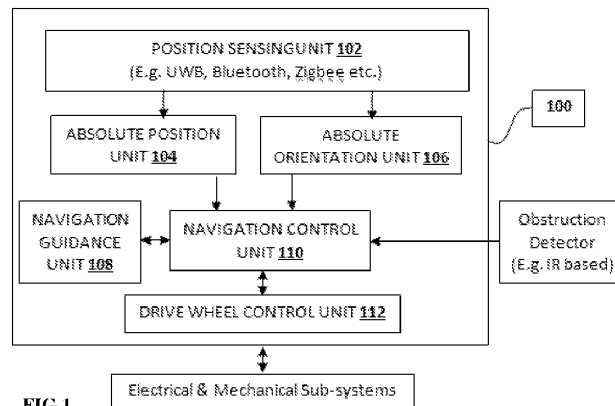


FIG.1

(57) Abstract: A method and system are provided for navigating an autonomous entity by using positioning sensors. Using the location information provided by positing sensing unit, the absolute position unit and absolute orientation unit provide an instantaneous absolute position and an absolute orientation. The navigation unit navigates between two points using a combination of line segments, each line segment using a multi-stage navigation processes that include ramping-up a speed of the entity, performing a course correction on the entity to orient the entity along a predetermined path, performing a stabilization of navigation of the entity for aligning entity within a deviation limit from the predetermined path and ramping-down the speed of the entity and stopping navigation upon entity reaching a predetermined limit from a target location. Drive wheel control unit translates the correction control signal from the navigation units to differential speeds applied on the drive wheels.

[Continued on next page]

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