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(54) **CYCLIST HAND SIGNAL DETECTION BY AN AUTONOMOUS VEHICLE**

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USPC 701/28
See application file for complete search history.

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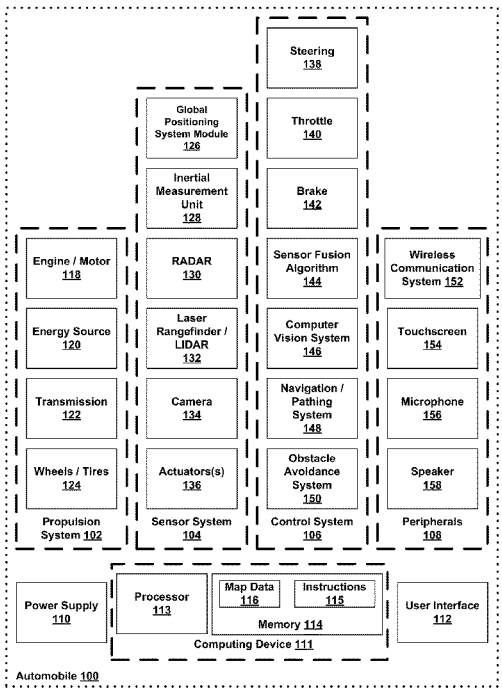
(57) **ABSTRACT**

Methods and systems for detecting hand signals of a cyclist by an autonomous vehicle are described. An example method may involve a computing device receiving a plurality of data points corresponding to an environment of an autonomous vehicle. The computing device may then determine one or more subsets of data points from the plurality of data points indicative of at least a body region of a cyclist. Further, based on an output of a comparison of the one or more subsets with one or more predetermined sets of cycling signals, the computing device may determine an expected adjustment of one or more of a speed of the cyclist and a direction of movement of the cyclist. Still further, based on the expected adjustment, the computing device may provide instructions to adjust one or more of a speed of the autonomous vehicle and a direction of movement of the autonomous vehicle.

19 Claims, 8 Drawing Sheets