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(54) Title: ORIENTATION ANGLE DETECTOR

(57) Abstract

An orientation angle detector using gyroscopes (301–303) for detecting X–, Y– and Z–angular velocities which are time–integrated (60) to produce pitch, roll and yaw angles (γ, β, α) of the orientation. Two accelerometers (403, 404) are used to obtain tentative pitch and roll angles in order to correct the pitch and roll angles, and two terrestrial magnetometers (401, 402) are used to obtain a tentative yaw angle so as to correct the yaw angle. When the tentative pitch, roll and yaw angles are defined accurate (50), the integrated pitch, roll and yaw angles are corrected (60) by the tentative pitch, roll and yaw angles.

