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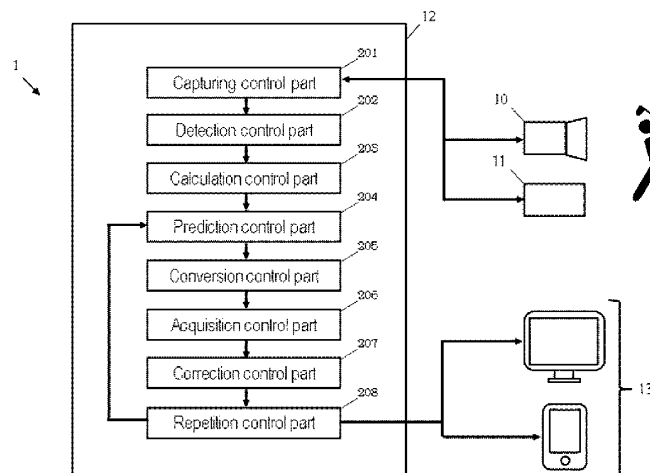
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(54) Title: BALL TRACKING APPARATUS AND BALL TRACKING METHOD



(57) Abstract: The prediction control part 304 predicts a three-dimensional position and a three-dimensional velocity of the world coordinate system of the flying ball at a specific time after the initial time as a predicted position and a predicted velocity based on initial position and initial velocity of flying ball, and an equation indicating a parabolic shape of the flying ball. The conversion control part 305 converts the predicted position into a two-dimensional position of a camera coordinate system as a temporary position. The acquisition control part 306 specifies a flying ball image and acquires a two-dimensional position of the camera coordinate system of the flying ball image as an observation position. The correction control part 307 corrects the predicted position and the predicted velocity as a corrected position and a corrected velocity based on the predicted position and the predicted velocity, the observation position, and a Kalman filter.

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