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(54) Title: OPTICAL TRACKING SYSTEM WITH DATA TRANSMISSION VIA INFRARED

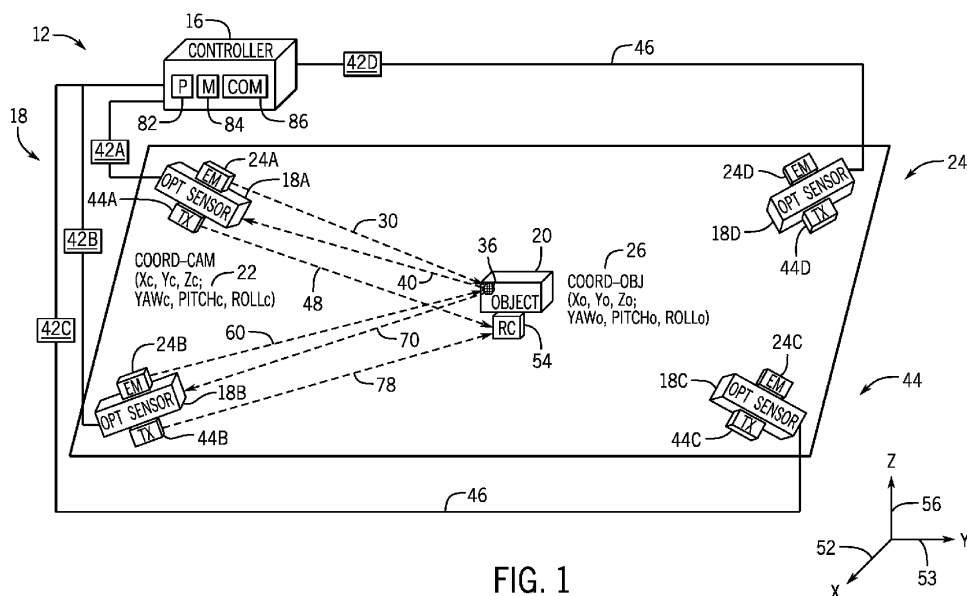


FIG. 1

(57) Abstract: An optical tracking system may include optical sensors (e.g., infrared (IR) cameras) coupled with illuminators (e.g., IR light-emitting diodes (LEDs)). The optical tracking system may track an object having retro-reflective markers. The light from the illuminators may be reflected by the retro-reflective markers and detected by the optical sensors. In certain cases, the object may include emitters (e.g., IRLEDs) such that active light emitted from the object is directly detected by the optical sensors. The optical sensors generate data based on detected light and send the data to a controller. The controller may compute position data (e.g., indicative of a relative 2D position between the object and the optical sensors). The controller may send the position data to the object optically (e.g., using IR light).

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