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(54) Title: LIGHT-BASED TOUCH SCREEN

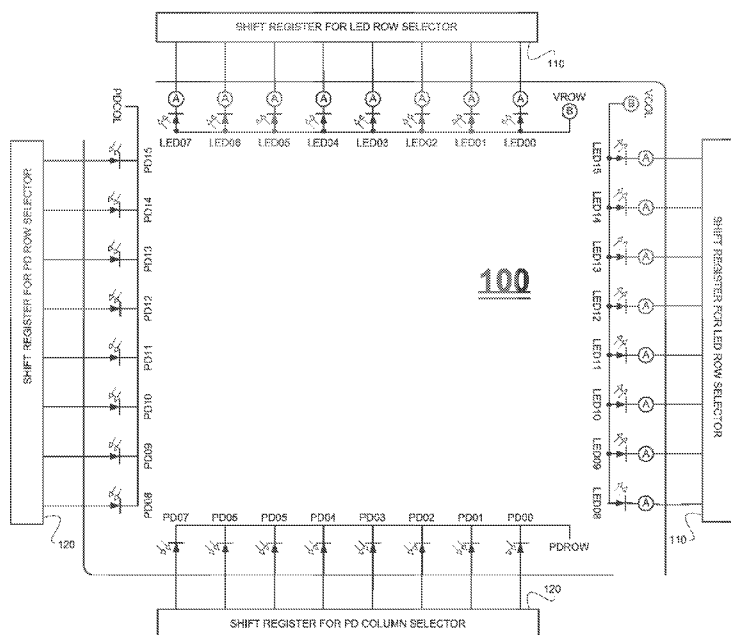


FIG. 5

(57) Abstract: A light-based touch screen, including a plurality of infra-red light emitting diodes (LEDs), for generating light beams, at least one LED selector, connected with the plurality of LEDs, for controllably selecting and deselecting one or more of the plurality of LEDs, a plurality of photodiode (PD) receivers, for measuring light intensity, at least one PD selector, connected with the plurality of PD receivers, for controllably selecting and deselecting one or more of the plurality of PD receivers, an optical assembly, for projecting light beams emitted by the plurality of LEDs, and a controller, coupled with the plurality of PD receivers, (i) for controlling the at least one LED selector, (ii) for controlling the at least one PD selector, and (iii) for determining therefrom position and velocity of an object, based on output currents of the plurality of PD receivers.