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(54) Title: SYSTEM AND METHOD FOR GENERATING A THREE-DIMENSIONAL (3D) MAP BASED ON MAPPING DESIGNATION INFORMATION

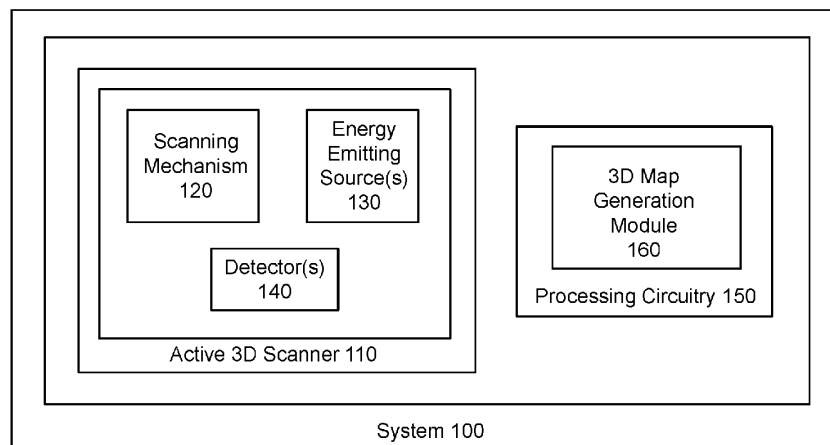


Fig. 1

(57) Abstract: A system for generating a three-dimensional (3D) map of part of a field-of-view (FOV) of at least one detector of an active 3D scanner, the system comprising: the active 3D scanner, comprising: a scanning mechanism configured to scan the FOV; at least one energy emitting source configured to emit energy pulses, in synchronization with the scanning mechanism, to cover the FOV; and the at least one detector; and processing circuitry configured to: obtain mapping designation information independent of past readings obtained by the at least one detector, if any; selectively activate the energy emitting source to emit only a subset of the energy pulses, in accordance with the mapping designation information, to cover the part of the FOV; obtain current readings, from the at least one detector, based on reflections of the subset of the energy pulses; and generate the 3D map based on the current readings.

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