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(54) Title: TERRAIN ADAPTIVE PULSE POWER IN A SCANNING LIDAR

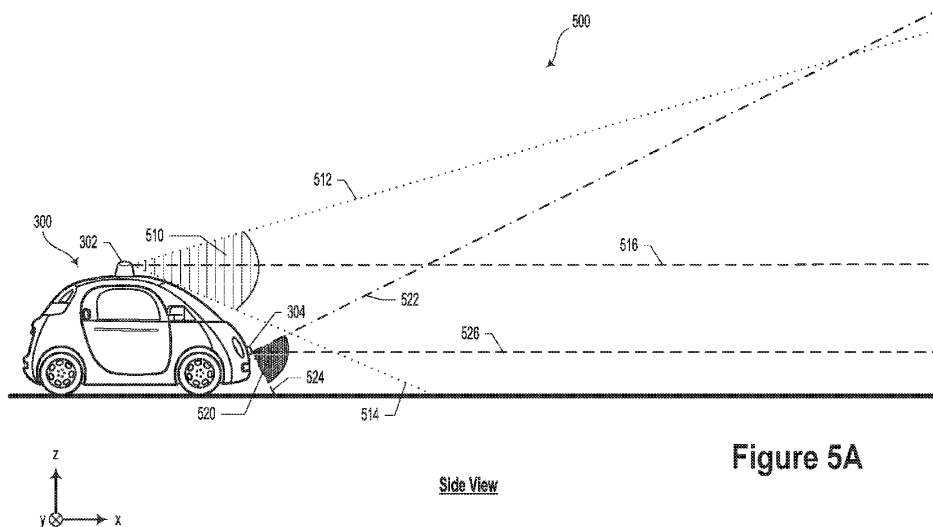


Figure 5A

(57) Abstract: The present disclosure relates to systems and methods involving Light Detection and Ranging (LIDAR or lidar) systems. Namely, an example method includes causing a light source of a LIDAR system to emit light along an emission vector. The method also includes adjusting the emission vector of the emitted light and determining an elevation angle component of the emission vector. The method further includes dynamically adjusting a per pulse energy of the emitted light based on the determined elevation angle component. An example system includes a vehicle and a light source coupled to the vehicle. The light source is configured to emit light along an emission vector toward an environment of the vehicle. The system also includes a controller operable to determine an elevation angle component of the emission vector and dynamically adjust a per pulse energy of the emitted light based on the determined elevation angle component.

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