

How many channels (laser beams) does a lidar sensor need for high resolution?

Depending on the application and the associated field of view, lidar with 8 to 128 laser beams (or lines) can be adequate. For example, a forklift can use a lidar with fewer sensor channels because it moves more slowly than a car. A car can be equipped with a 32 channel lidar to drive autonomously up to 35 MPH. To drive autonomously at 65 MPH, the driving system should be equipped with a lidar containing 128 channels. As a robot or vehicle moves faster, the sensor requires more channels to produce images in high resolution.

