

Imaging LIDAR development for Landing on Mars

ISI together with a team of partners have developed in an imaging LIDAR system based on a silicon photon counting array detector for landing on the Martian or Lunar surface for the **European Space Agency**.

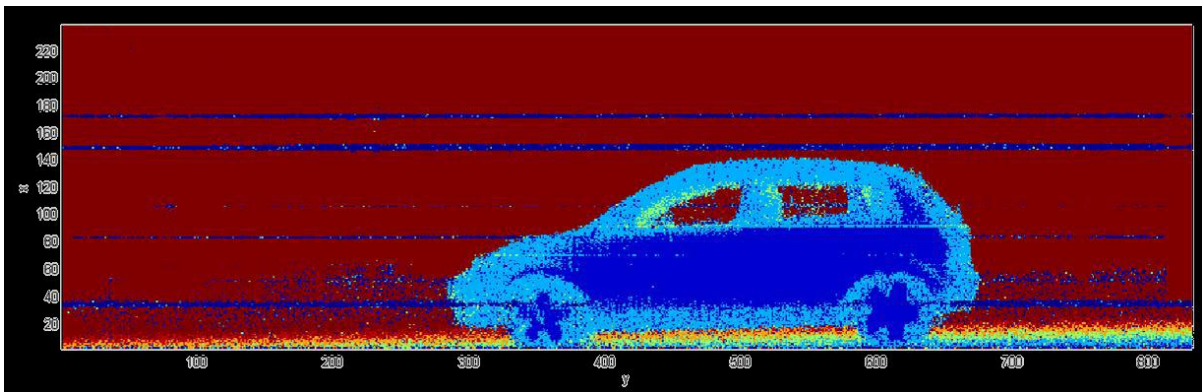


Agency. This challenging development has involved pushing the boundaries of existing LIDAR technologies.

The final instrument operates over an enormous dynamic range of $> 10^6$ with the distance to the target varying from a few metres up to 5 km. The range resolution approaches 2 cm with the instrument capable of making 2 million range measurements every second.

To recover the complete FOV of 20 degrees the LIDAR used a unique 256 pixel Geiger mode array detector combined with a state of art scanning system. The device has been initially tested on the ground against a variety of targets with excellent measurement obtained from 100 m distance (including Joes car !)

For more information contact ISI (mfoster@is-instruments.com)



Key Features

Operating range from metres to several kilo metres

Photon Counting

2 million range measurements made per second

20 degree FOV

Power consumption < 60 W; Mass < 8 kg

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