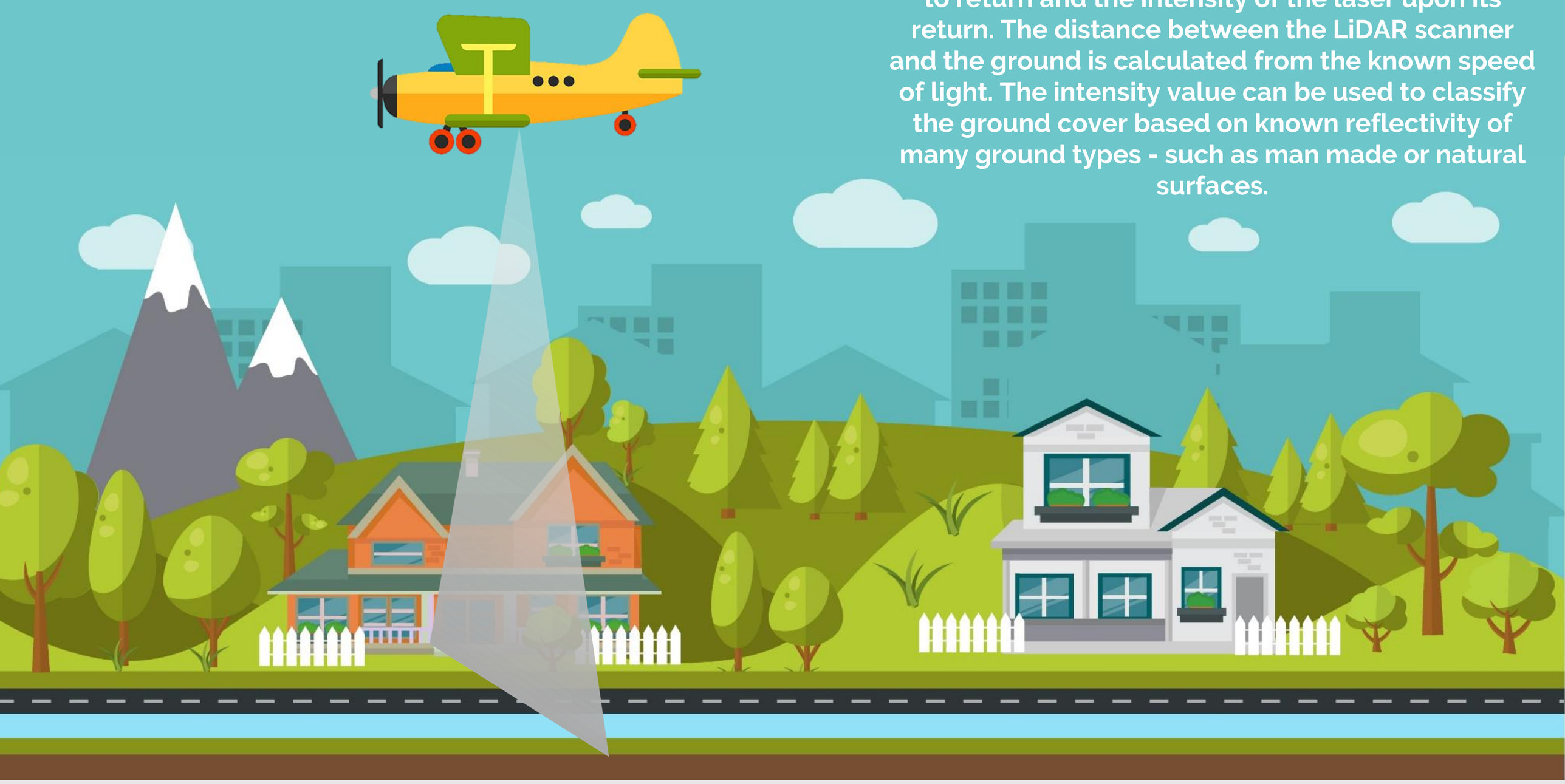
FIND OUT MORE ABOUT

Airborne LiDAR

LiDAR (Light Detection and Ranging) is a type of laser scanning which is used to rapidly scan the terrain usually from an aircraft. It is also known as Airborne laser scanning (ALS).

HOW DOES LiDAR WORK?



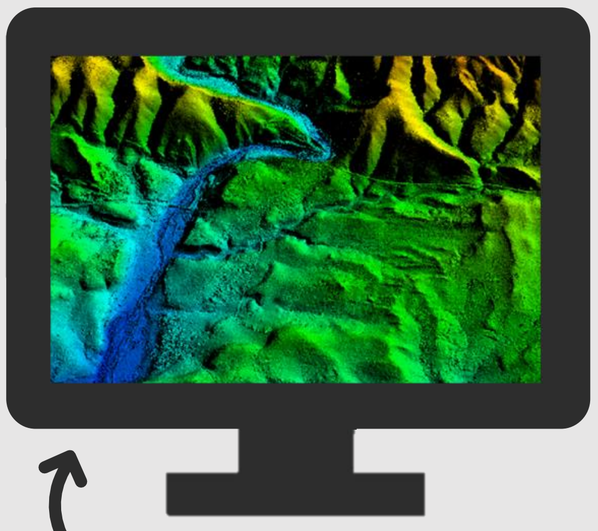
The LiDAR scanner transmits laser pulses to the ground surface, which are reflected back to the sensor, recording the time it has taken for the laser to return and the intensity of the laser upon its return. The distance between the LiDAR scanner and the ground is calculated from the known speed of light. The intensity value can be used to classify the ground cover based on known reflectivity of many ground types - such as man made or natural surfaces.

WHAT IS IT USED FOR?

LiDAR data can be used to map entire cities, enabling decision makers to accurately pinpoint structures or areas of interest in high resolution detail.

LiDAR maps can also be used to highlight changes and abnormalities such as surface degradation, slope changes and vegetation growth.

LiDAR technology can also be used in mobile mapping, real time monitoring and hydrographic surveying.



Digital Elevation Model (DEM)

Satellite imagery

For more information visit:
ncl.ac.uk/engineering/undergraduate/geospatial

Newcastle University