

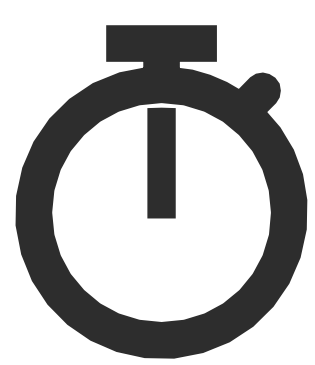
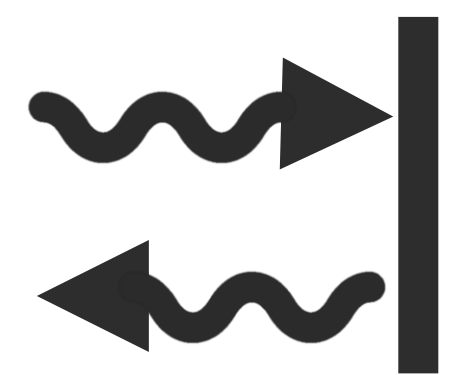
# LEARN MORE ABOUT Laser Scanning

Terrestrial laser scanning is a popular surveying method that can accurately measure angles and distances to a point on a surface, such as the ground, buildings and monuments.

## HOW DOES IT WORK?

1

First, the laser scanner transmits a laser pulse which is reflected off a surface and back to the sensor,

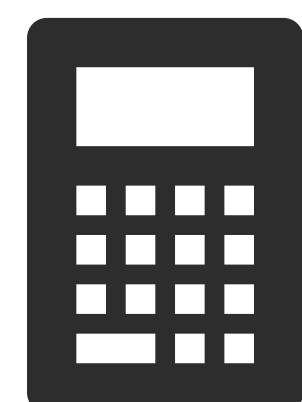


The sensor then calculates how far away the surface is by measuring the time taken for the laser pulse to complete its journey. This process is known as the 'time of flight' measurement.

2

3

The distance, horizontal and vertical angles observed are combined to calculate the X, Y, Z coordinate of the measured point. Modern scanners can collect up to 1,000,000 points per second.



## WHAT CAN I USE IT FOR?

This can be used to check dimensions, create 2D and 3D models. It is used in a variety of activities including engineering, environmental monitoring, archeology and city modelling.



↶ 3D laser scan model of campus



photo of campus ↷