

ROBIN Mobile Mapping System Scans Highway



Leading geospatial technology supplier, 3D Laser Mapping, has helped surveying specialist, NorthGroup Consulting, streamline a highway upgrade in Australia.

To help plan restoration works, multi-platform mapping system, [ROBIN](#), was used to survey a 15km section of the Bruce Highway on the east coast of Queensland. The data captured provided a highly accurate 3D model of the entire road's features and adjoining land, as well as the road surface itself.

Following installation and setup, [ROBIN](#) was mounted on a vehicle and deployed in under ten minutes. Driving at the same speed as normal road traffic, NorthGroup was able to capture the data from the safety of the vehicle, with no detriment to other road users, in 7

hours and 45 minutes.

The data capture was successfully completed in one continual scan, without the challenges of having to complete repeated scanner set-ups to capture intersection crossings or other off-road features. Upon completion of the project, NorthGroup was able to produce a dense point cloud with sub 10mm accuracy for the entire stretch of highway.

Dr. Graham Hunter, managing director at 3D Laser Mapping, said "North Group approached 3D Laser Mapping as it was in need of a solution with high accuracy, quality data and quick scanning speeds. ROBIN was an obvious choice. Collecting data from a moving vehicle restricts operative's exposure to fast-moving traffic, something which is a key consideration during any survey of this kind."

Bruce Highway is an essential artery in Australia's road network, which connects many towns along its route. One of its busiest sections is the area between Brisbane and the Sunshine Coast. Due to the heavy volume of tourism traffic each year, this was in need of an upgrade to satisfy the increasing demand of road vehicles.

Graham added "The entire project was completed in less than 11 days. This time scale would have been impossible without either closing the highway at night or causing serious disruptions and delays to this busy stretch of road. NorthGroup also found great benefit in ROBIN's data output. As LiDAR data is stored on the cloud, this allowed the road model to be revisited by all of the project stakeholders - city planners, construction workers, utility companies - all of whom would have had to make additional site visits."

ROBIN can be deployed in a range of sectors, and provides a multi-purpose all round system. It integrates a 12MP camera (for drive) and 18MP (for walk and fly), two GNSS antennas, GIS grade IMU navigation system, touch screen control unit, three mounting systems, capture software, a post-processing software package and has a field of view of 330 degrees.

For more information visit: <https://www.3dlasermapping.com/robin-mobile-mapping-system/>