

Vehicle Undercarriage Inspection Device

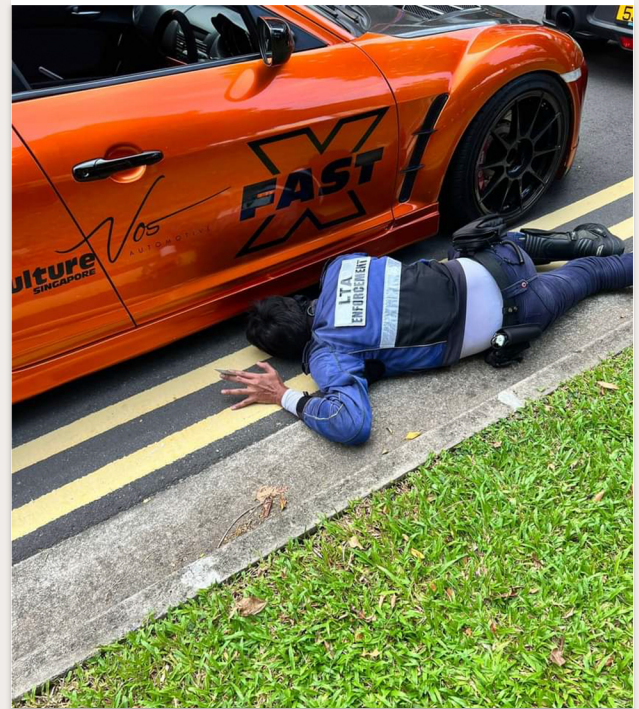
Technology Overview

Officers are required to conduct inspections of the undercarriage of vehicles during enforcement operations to detect illegal modifications. Currently, enforcement officers have to get on all fours and use their mobile phones to inspect vehicle undercarriages for illegal modifications and take photos. These photo images are captured, reviewed, saved, uploaded to database, and archived as evidence. This is usually done along roadsides or in carparks in the midst of passing vehicles which poses a certain level of risk to the officers.

A low-profile mobile robot/device equipped with a camera, and can be remotely controlled by an officer, was developed to assist in this inspection operation.

Features & Specifications

- Low-profile (less than 8cm)
- High performance camera capable of full HD and wide angle of 140 degrees mounted on a 2 degree of freedom (DOF) arm with user operated lighting
- Images can be view real-time, saved and uploaded to storage.
- Tracked wheel system – can move over different types of floor/terrain
- Light weight (about 1 kg including battery)
- Long battery life (2 hours of operation for a full charge)
- Wireless operation (using Bluetooth technology)



Customer Benefits

User can inspect the undercarriage of vehicle safely and easily.

Potential Applications

The applications for this technology are:

- vehicle undercarriage inspection
- remote inspection or surveillance operation

Collaborator

Land Transport Authority