

ABSTRACT

Military vehicles in Indonesia play an important role in maintaining the security and sovereignty of the country. Various types of military vehicles are used for defense, patrol, mobility, and other operational support purposes. The development of the military industry in the world cannot be separated from the role of technology used. Various countries in the world are competing to create military vehicles that can be controlled remotely. One of the products is the Unmanned Ground Vehicle. UGV or an abbreviation of Unmanned Ground Vehicle is an unmanned vehicle that can operate without the need for human presence in the vehicle.

This paper presents a design for a specialized Unmanned Ground Vehicle (UGV) for military logistics operations. The system serves to perform a critical role in providing supplies and support to enable soldiers to effectively fulfill their duties. In this system the vehicle can be remotely controlled and monitored specifically designed to operate without the need for human presence equipped with a monitoring system to monitor the situation on the battlefield. The UGV can return to its home base autonomously if it loses control communication signals.

The results shown after several tests show that the remote control system can reach a radius of 1 km. In the monitoring system the user can monitor the situation using 2 web cameras and the geographical location of the UGV and the UGV can return to the starting point when lost signal using an automation system.

Keywords: UGV, Militer Logistic, Automation, Monitoring, Radio Communication.