ABSTRACT

The Randi: Android Controlled Surveillance Vehicle is a remote-controlled car turned into a mobile surveillance system. The car is directly manipulated from a control crawler platform from an Android device, with features of viewing real time video and rotation control pan or tilt of the IP Camera through Wi-Fi. The camera has a night vision capability that mounted on the car so that user can see where the car is going and what the car can see. The system helps to handle surveillance of narrow paths and cramped spaces that are normally difficult to inspect and serves as a solution to portability and mobility issues in conducting roving or searching activity.

The study was built on the Gizduino ATmega 644 microcontroller that was developed using Turbo c programming language in Arduino IDE to able to communicate with the DFrobot 2A Motor Shield to control the car using an Adafruit CC3000 Wifi Shield. The mobile application was developed using Java programming language with the Eclpise IDE and used tools such as Android SDK, and Android Development Tools. The Wi-Fi shield is the connection between the RC Vehicle and the Android device that allows the user to control the vehicle. Rechargeable batteries are the source of the power for the vehicle.

The result of the evaluation through survey questionnaire implies that the researchers were able to fulfill its purpose with the system's output. Users find the

system reliable and efficient in doing surveillance and roving activity and helpful in searching activity especially in narrow area.