ABSTRACT

Android Gun Controller is a system that has been programmed using CGI (Common Gateway Interface) method which able to integrate and control a weapon prototype that is nerf with an Android Application. The purpose of making this technology is for reducing the risk of shooter when in a battle in a defensive mode. The multiclient feature that has been made allows a shooter (operator) to control more than one weapon with using a smartphone from a long distance.

In this research, data communication media that this device uses is wireless, using TCP protocol (Transmission Control Protocol). The Server has been programmed using CGI method to integrate software and hardware. Client user interface designed using Android based platform for a mobile application. The hardware that this device uses is a Adruino Uno module as a controller, which will be executed by two DC motor driver modules (L298N) to move three DC motors so this device able to move in X-axis, Y-axis direction and it also can move the trigger to shoot.

After testing process, this device can work well functionally. The maximum accuracy are 10,4cm from the target ranged two meters, 14.7cm from target ranged three meters, and 16.87cm from target ranged five meters with a 5,99 second response. The maximum accuracy is still very far when compared with the actual gun (SS1 PT.Pindad) that have maximum accuracy is 2 mm with 5 ms response.

Keywords: Controller, CGI, Arduino, driver motor DC (L298N), motor DC.