

ABSTRACT

Shooting is a competitive sport that requires accuracy and speed skills by using various types of weapons such as firearms or air rifles. This sport serves to train the concentration of self-control. Shooting sports require a scoring system or reading of scores that are precise and accurate. Where if the score reading is done manually by the jury who judges it will take a relatively long time for the information to reach the audience. In this study, we will create a target shooting system using the ky-031 sensor and an IoT-based display scoring system. This prototype was built using several modules, namely lcd2004, pwm dc motor, l298n module, ky-031 tap sensor, and using two esp32 as processors. With this the delivery of scores will be faster because after the ky-031 tap sensor placed on the shooting target gets input data it will be sent directly via wifi to the score display. Based on the results of the study, it shows that the accuracy of sensor readings is on average 92% with an increasingly long data transmission delay if the distance between the target and the display is getting farther and the maximum connectivity distance between the target and the display is 10 meters so that the system can function properly.

Keywords: automatic scoring system, ky-031 sensor, Internet of Things, target shooting