

ABSTRACT

A bullet launcher is a device aimed at shooting at the target, powered by explosive gunpowder as a driving force. The ejection is used as a means of self-defense, but its use is limited because the use of gunpowder can be dangerous. On the contrary, pneumatic propulsion can be used for firing[1].

Pneumatics is the use of compressed air to perform working movements on a tool or machine. With the use of compressed air as an ejection device on the sleeve, the manufacture of personal protective equipment can be carried out. In its manufacture, a pneumatic system for the manufacture of this launcher must be applied. Compressed air can be stored and passed to the sleeve to fire bullets[2].

In the preparation of this final project, the author designed a pneumatic-based bullet-repellent device. The design of this pneumatic ejection gun includes a mini compressor, regulator, and solenoid valve connected to the Raspberry Pi as a microcontroller.

From the design that has been carried out, the results of testing the accuracy and of the precision tool through firing towards large targets with a diameter of 20.4 cm with a distance of 1 m, 1.2 m, and 1.5 m. At each distance, 3 pieces of data were taken, which was carried out by an attempted data collection of 5 shootings. Then after conducting the test, the average is calculated to get the value of accuracy and precision.

Keywords: Accuracy, Bullet launcher, Pneumatics, Precision, Raspberry Pi.