

ABSTRACT

In table tennis, many people train manually like practicing one on one together. This method is arguably less effective because it is exhausting for a coach who trains his players, as well as strokes from a table tennis coach will decrease in accuracy if he is training for a long period of time. Therefore, a tool that can throw a ping-pong ball is needed which can produce speed and spin of the shot that can be adjusted like a ping-pong ball throwing robot.

Research to create a robot that can produce adjustable speed and spin of the shot has several procedural steps to achieve the desired results, such as the process of finding the information needed, testing, and implementation. The ping-pong ball throwing robot will be controlled wirelessly using an android application where this application can regulate the speed and spin of the ping-pong ball spin that is fired by the robot. For speed and spin settings, you will have a control system that will maintain the speed and spin of the ping-pong ball shot as desired. The resulting ball shot period will be adjusted using an analog servo with a predetermined delay.

The result that is expected to be achieved is to be able to produce a ping-pong ball throwing robot with the speed, period, and spin of the shot that can be adjusted through the android application. The speed of the shot that can be produced is around 2-20 m / s, there are two types of spin produced, namely topspin and backspin, and can throw 40-70 balls / minute.

Keywords - Table tennis, ping-pong ball spin, android app, periodic shots, ball speed, table tennis robot.