

## ABSTRACT

Drones or Unmanned Aerial Vehicle Drones (UAVs) are currently widely used in various fields of life, drones are usually controlled using a remote control, but to control a drone using a remote control requires special skills, so not all users can directly control the drone properly. With drones that can fly autonomously, it can help users control the drone easily. The drone uses the Raspberry Pi 3 to process the flight path that the drone will take with the help of GPS, Flight data in the form of coordinates on the earth that have been taken by the drone will be stored, which will later be analyzed using the Hubeny formula, then it is known whether the drone can fly autonomously according to a predetermined flight route. From the tests that have been done, it is found that the Hubeny formula can analyze whether the drone can fly according to the predetermined route, with an error rate of 21.1157%.

Keywords: drone, GPS, raspberry pi 3, hubeny formula, coordinates