ARDUINO UNO BASED QUADCOPTER DRONE DESIGN

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ABSTRACT

Currently the use of quadcopter drones has been found in various fields but to control balance is very rare. To solve this problem, in this final project, a balancing quadcopter drone was made using the Arduino Uno using the BMP280 sensor as the height sensor and the MPU6050 sensor as the Gyro sensor. When the Barometer BMP 280 sensor reads the altitude, the sensor will send a digital signal to the ESC. The altitude is less than 0 then the motor will gradually increase its speed and if the height has reached the desired speed, the motor speed will remain at balanced speed using the Gyroscope MPU6050 sensor as a balance. The results of the test tools show that the balance is obtained at the value of ki: 0,003*, kp*: 3,55*, kd*: 2,05 *at a height of 1 meters.*

Keyword: *Drone Quadcopter, Arduino Uno, Sensor Barometer BMP280, Sensor Gyroscope MPU6050*