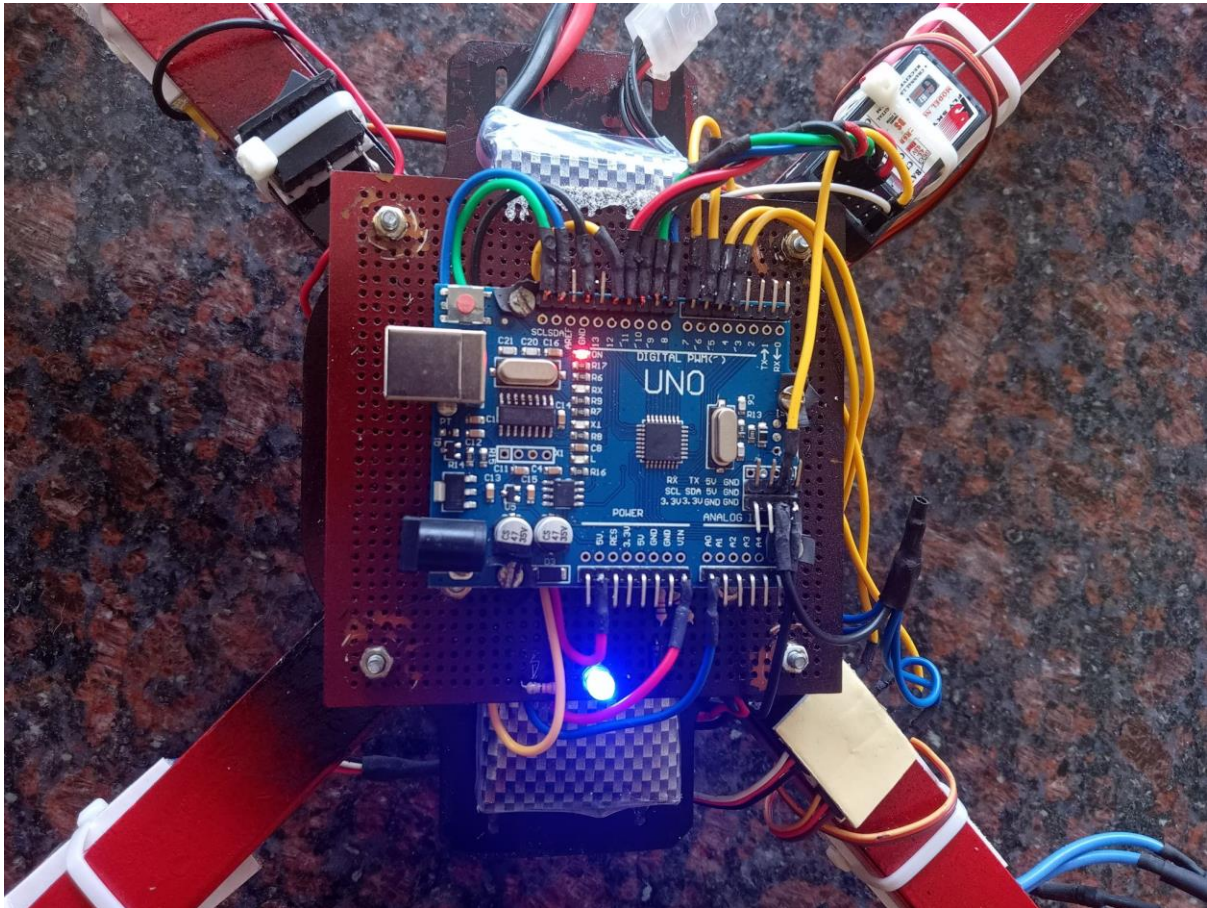
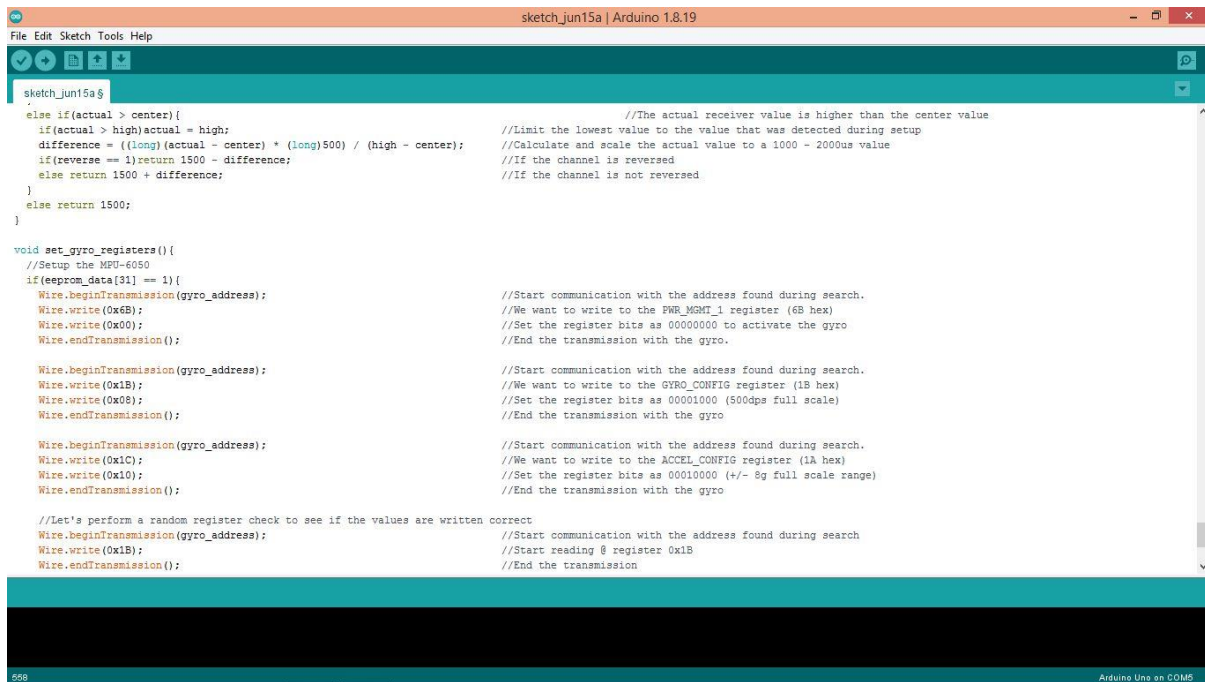


ARDUINO QUADCOPTER



ARDUINO QUADCOPTER



```
sketch_jun15a | Arduino 1.8.19
File Edit Sketch Tools Help

sketch_jun15a$
else if(actual > center){
  if(actual > high)actual = high;
  difference = ((long)(actual - center) * (long)500) / (high - center); //Limit the lowest value to the value that was detected during setup
  if(reverse == 1)return 1500 - difference; //Calculate and scale the actual value to a 1000 - 2000us value
  else return 1500 + difference; //If the channel is reversed
} //If the channel is not reversed
else return 1500;
}

void set_gyro_registers(){
  //Setup the MPU-6050
  if(eeprom_data[31] == 1){
    Wire.beginTransmission(gyro_address); //Start communication with the address found during search.
    Wire.write(0x6B); //We want to write to the PWR_MGMT_1 register (6B hex)
    Wire.write(0x00); //Set the register bits as 00000000 to activate the gyro
    Wire.endTransmission(); //End the transmission with the gyro.

    Wire.beginTransmission(gyro_address); //Start communication with the address found during search.
    Wire.write(0x1B); //We want to write to the GYRO_CONFIG register (1B hex)
    Wire.write(0x08); //Set the register bits as 00001000 (500dps full scale)
    Wire.endTransmission(); //End the transmission with the gyro

    Wire.beginTransmission(gyro_address); //Start communication with the address found during search.
    Wire.write(0x1C); //We want to write to the ACCEL_CONFIG register (1A hex)
    Wire.write(0x10); //Set the register bits as 00010000 (+/- 8g full scale range)
    Wire.endTransmission(); //End the transmission with the gyro

    //Let's perform a random register check to see if the values are written correct
    Wire.beginTransmission(gyro_address); //Start communication with the address found during search
    Wire.write(0x1B); //Start reading @ register 0x1B
    Wire.endTransmission(); //End the transmission
  }
}
```

598 Arduino Uno on COM5

After a crash , I lost my K.K.2.1.5 Flight Controller which costs about Rs.6000.Since it is an expensive part , rather than spending that money completely, I bought an Arduino Uno and MPU 6050 and using C programming and a little help from youtubers, I finally built my own flight controller

For that price range (which was about Rs.600) , it flew quite stable with programmed alerts for safety.

Another advantage here is that I could program anything I want that I wish to integrate with the drone easily and without hassle.

This project was truly a eye-opening journey through the vast world of programming and problem-solving. My wits were put to the test.