Program 6

Smoke detector

```
int redLed = 12;
int greenLed = 11;
int buzzer = 10;
int smokeA0 = A5;
// Your threshold value
int sensorThres = 400;

void setup() {
  pinMode(redLed, OUTPUT);
  pinMode(greenLed, OUTPUT);
  pinMode(buzzer, OUTPUT);
  pinMode(smokeA0, INPUT);
  Serial.begin(9600);
}

void loop() {
  int analogSensor = analogRead(smokeA0);

  Serial.print("Pin A0: ");
  Serial.println(analogSensor);
  // Checks if it has reached the threshold value
  if (analogSensor > sensorThres)
  {
    digitalWrite(redLed, HIGH);
    digitalWrite(greenLed, LOW);
    tone(buzzer, 1000, 200);
  }
  else
  {
    digitalWrite(redLed, LOW);
    digitalWrite(greenLed, HIGH);
    noTone(buzzer);
  }
  delay(100);
}
```

Program 7

Bluetooth

```
//#include <Servo.h>
//Servo ser_r;
//Servo ser_l;

int led=13;
int data = 0;
int pos = 0;

void setup()
{
  pinMode(led, OUTPUT);
  digitalWrite(led, LOW);
  Serial.begin(9600);
  //ser_r.attach(9);
  //ser_l.attach(10);
  //ser_r.write(pos);
  //ser_l.write(pos);
}

void loop()
{
  if(Serial.available()>0)
  {
    data = Serial.read();
    if(data == 'n')
    {
      digitalWrite(led, LOW);
      //ser_r.write(90);
      //delay(50);
      //ser_r.write(pos);
      Serial.println("LED:OFF");
    }
    else if(data == 'b')
    {
      digitalWrite(led, HIGH);
      //ser_l.write(90);
      //delay(50);
      //ser_l.write(pos);
      Serial.println("LED:ON");
    }
  }

}
```