“Kit de 37 sensores”

Rogelio Ferreira Escutia

Contenido


37 SENSOR KIT
Maker Faire : Make the world more intelligent!
JOYSTICK
FLAME
RGB LED
HEARTBEAT
2PCS LIGHT CUP
HALL MAGNETIC
RELAY
LINEAR HALL
SMD RGB
7 COLOR FLASH
TILT SWITCH
18B20 TEMP
BIG SOUND
TOUCH
TWO-COLOR
LASER EMIT
BALL SWITCH
ANALOG TEMP
SMALL SOUND
DIGITAL TEMPERATURE
MINI TWO-COLOR
BUTTON
PHOTOR-ESISTOR
IR EMISSION
TRACKING
BUZZER
REED SWITCH
SHOCK
TEMP AND HUMIDITY
IR RECEIVER
AVOIDANCE
PASSIVE BUZZER
MINI SWITCH
ROTARY ENCODERS
ANALOG HALL
TAP MODULE
LIGHT BLOCKING

Conexión y Programación de Sensores

Heartbeat

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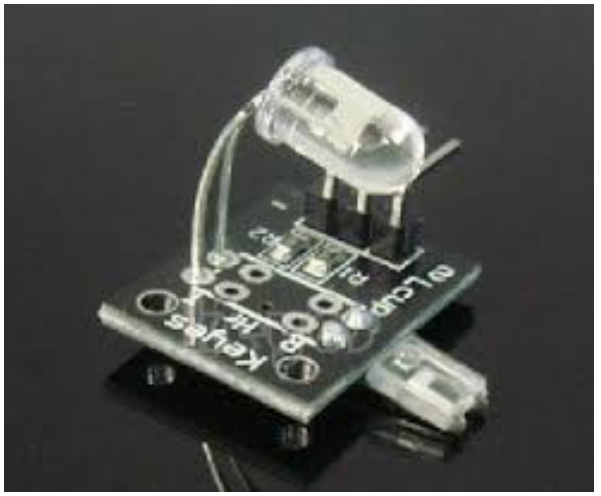
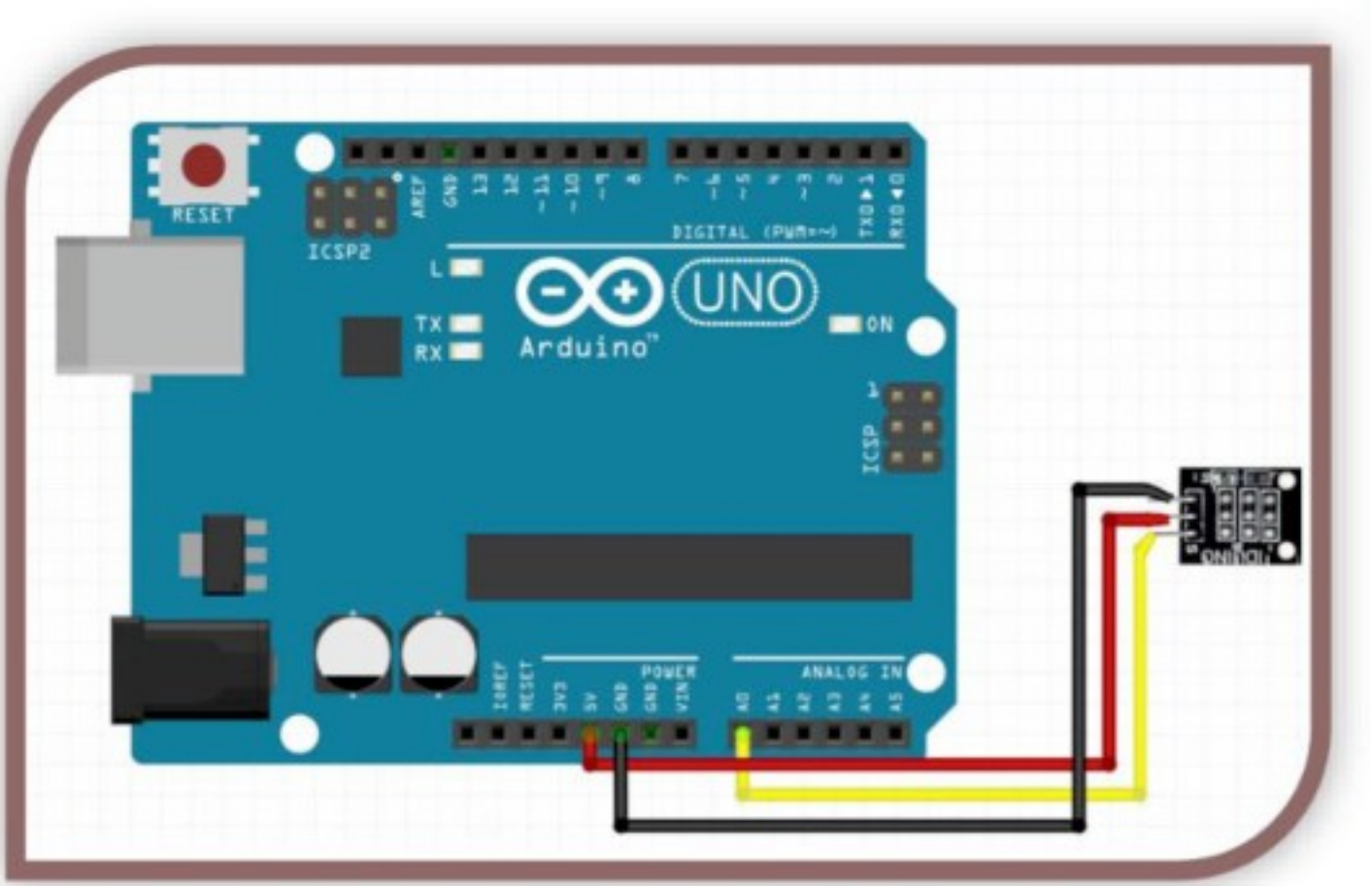


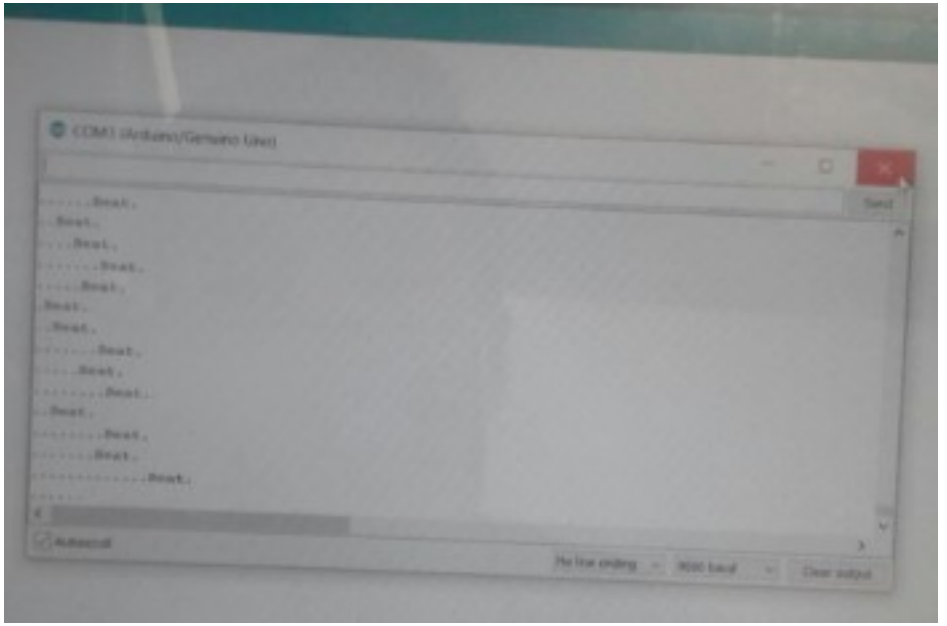
Heartbeat


RESET
ICSP2
L
TX
RX
UNO
Arduino
ON
ICSP
DIGITAL (PWM~)
POWER
ANALOG IN

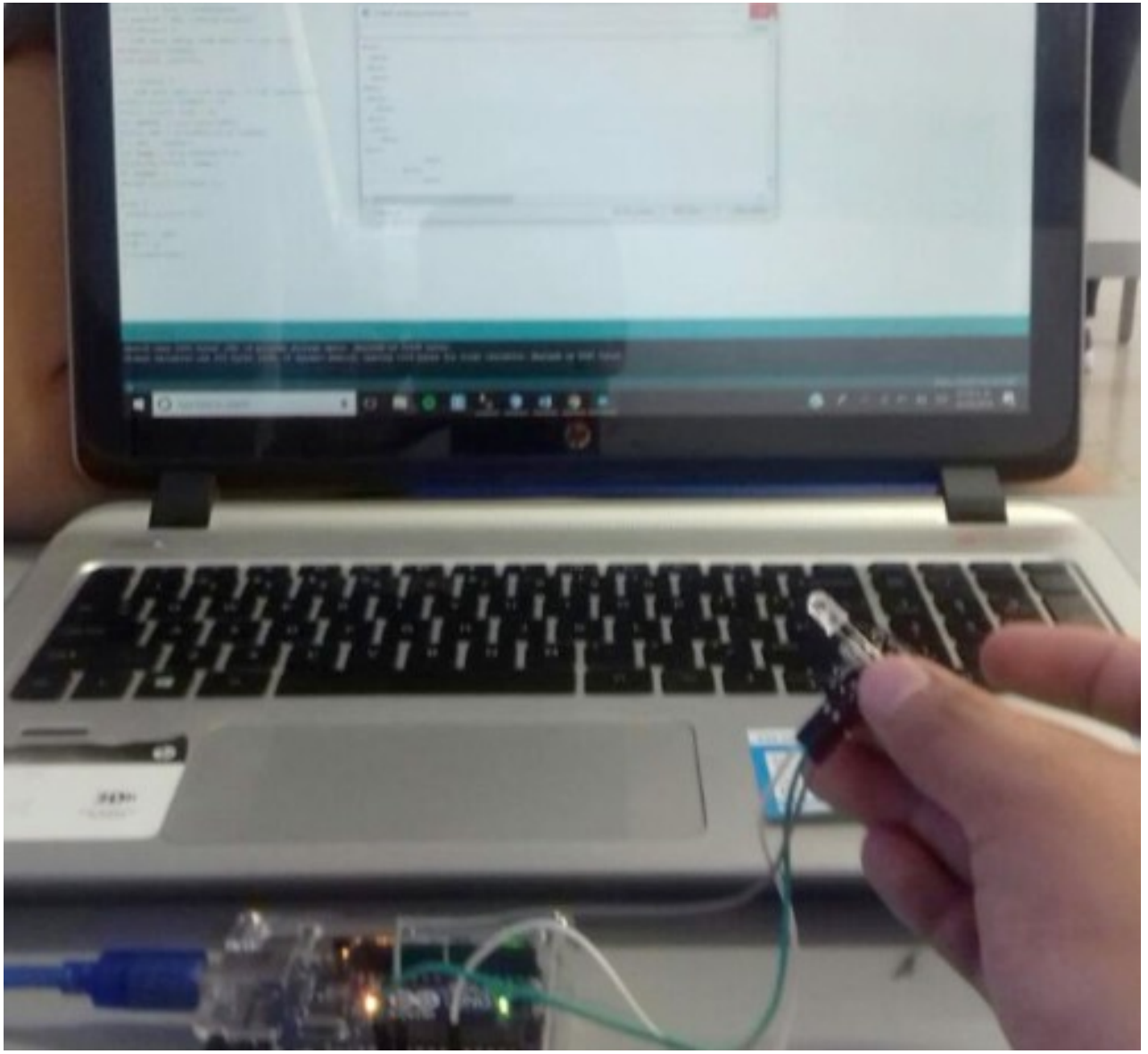
Heartbeat

Heartbeat §

```
double a = 0.75; //Alpha
double c = 0.0; //Difference
int period = 20; //Delay period
void setup() {
 // put your setup code here, to run once:
Serial.begin(9600);
pinMode(13, OUTPUT);
}
void loop() {
 // put your main code here, to run repeatedly:
static double oldVal = 0;
static double oldC = 0;
int rawVal = analogRead(A0);
double val = a*oldVal+(1-a)*rawVal;
c = val - oldVal;
int temp = (c<0.0&&oldC>0.0);
digitalWrite(13, temp);
if (temp) {
Serial.println("Beat.");
}
else {
 Serial.print(".");
}
oldVal = val;
oldC = c;
delay(period);
}
```



Heartbeat



Color Light

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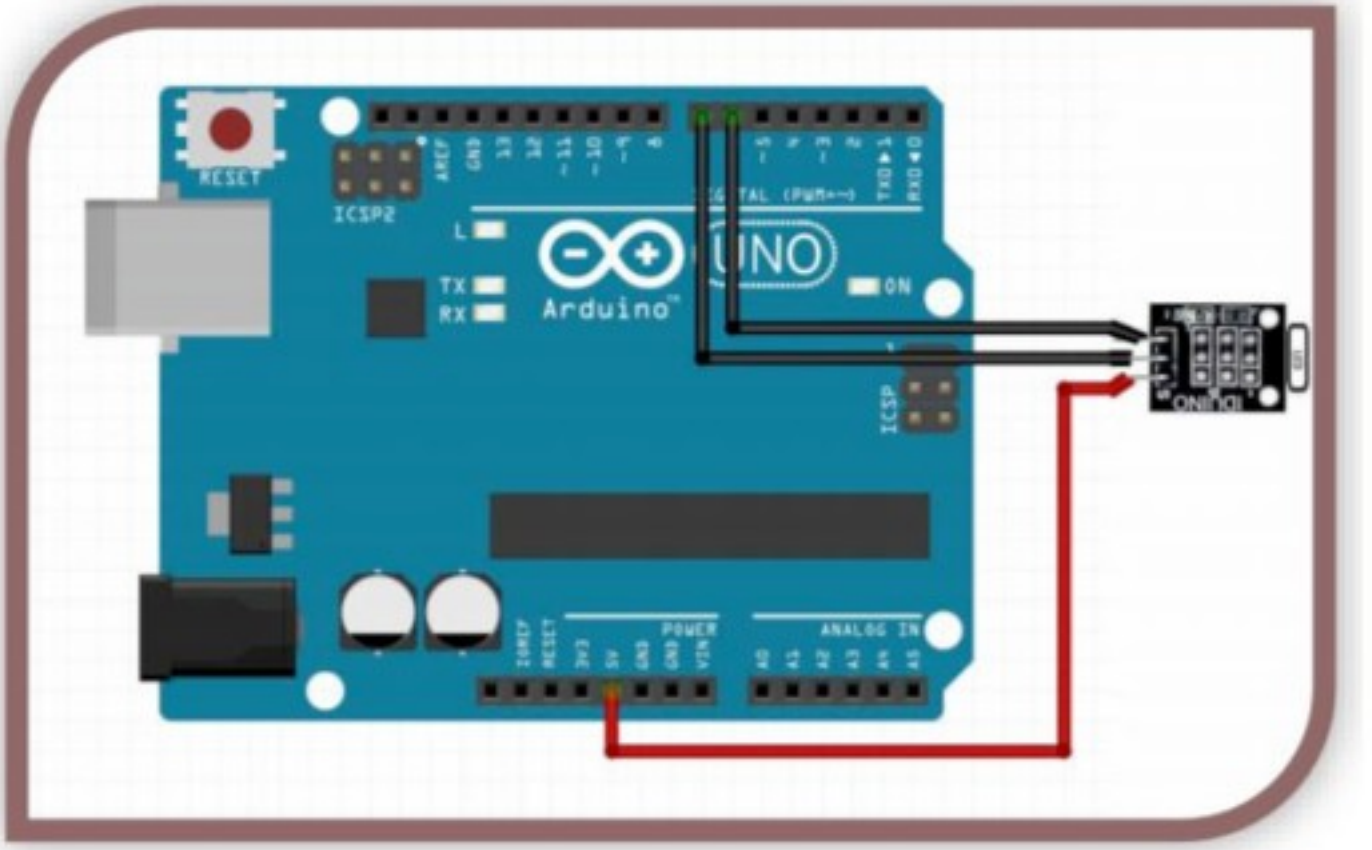
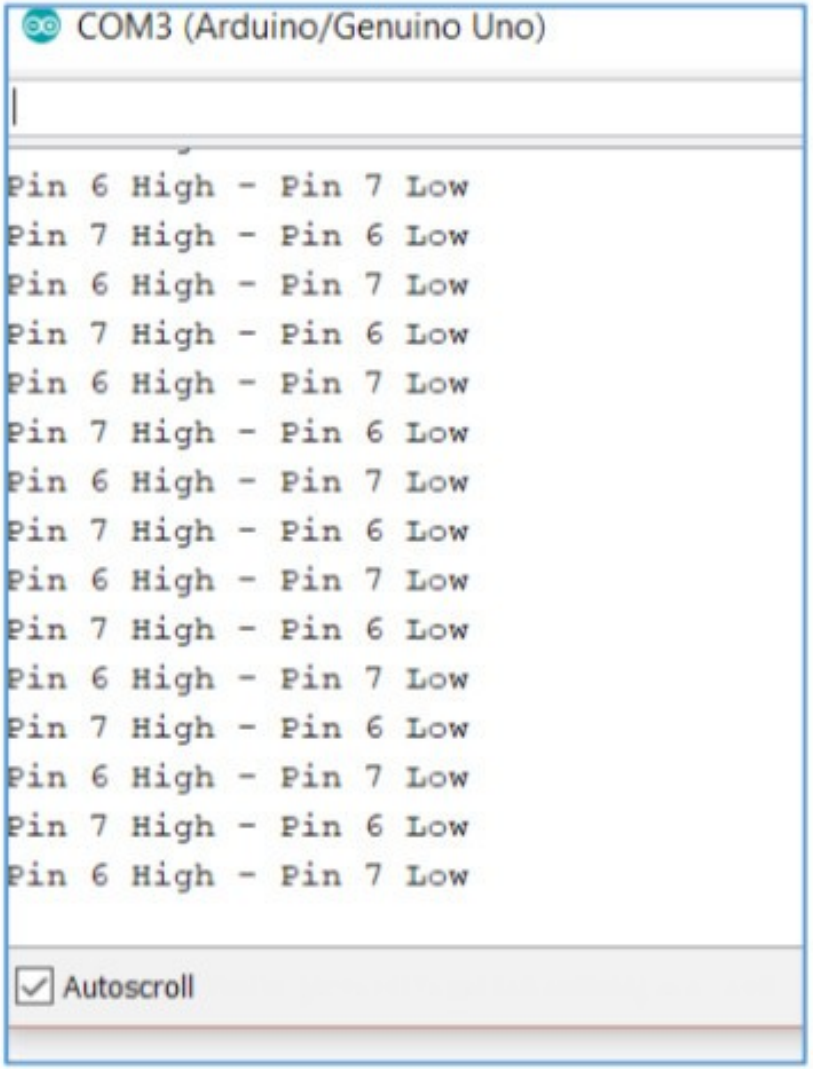
Color Light

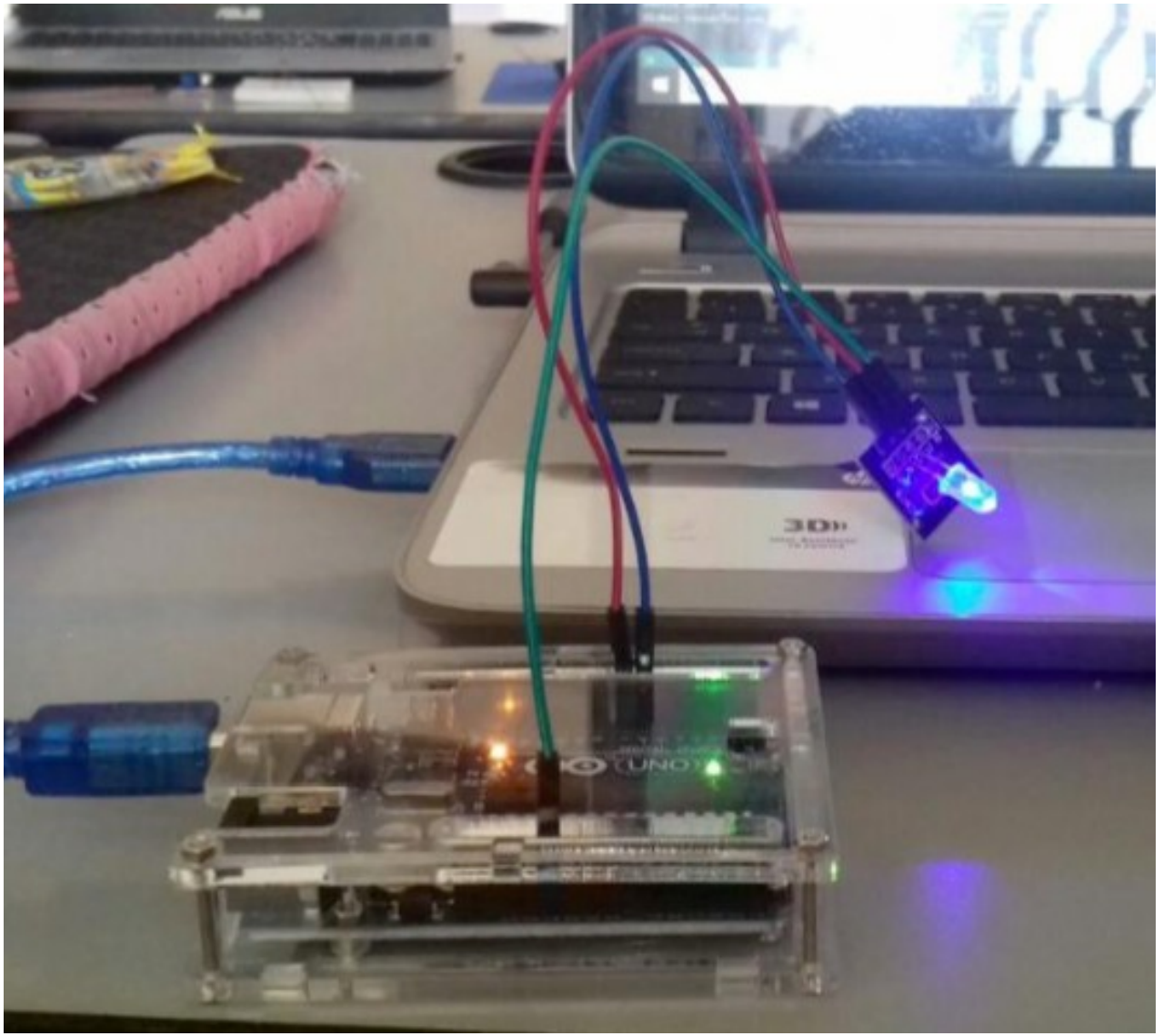


Color Light

```
void setup() {
 // put your setup code here, to run once:
 Serial.begin(9600);
 pinMode(7, OUTPUT);
 pinMode(6, OUTPUT);
}
void loop() {
 // put your main code here, to run repeatedly:
digitalWrite(7, HIGH);
digitalWrite(6, LOW);
Serial.println("Pin 7 High - Pin 6 Low");
delay(1000);
digitalWrite(6, HIGH);
digitalWrite(7, LOW);
Serial.println("Pin 6 High - Pin 7 Low");
delay(1000);
}
```



Color Light



Tilt Switch

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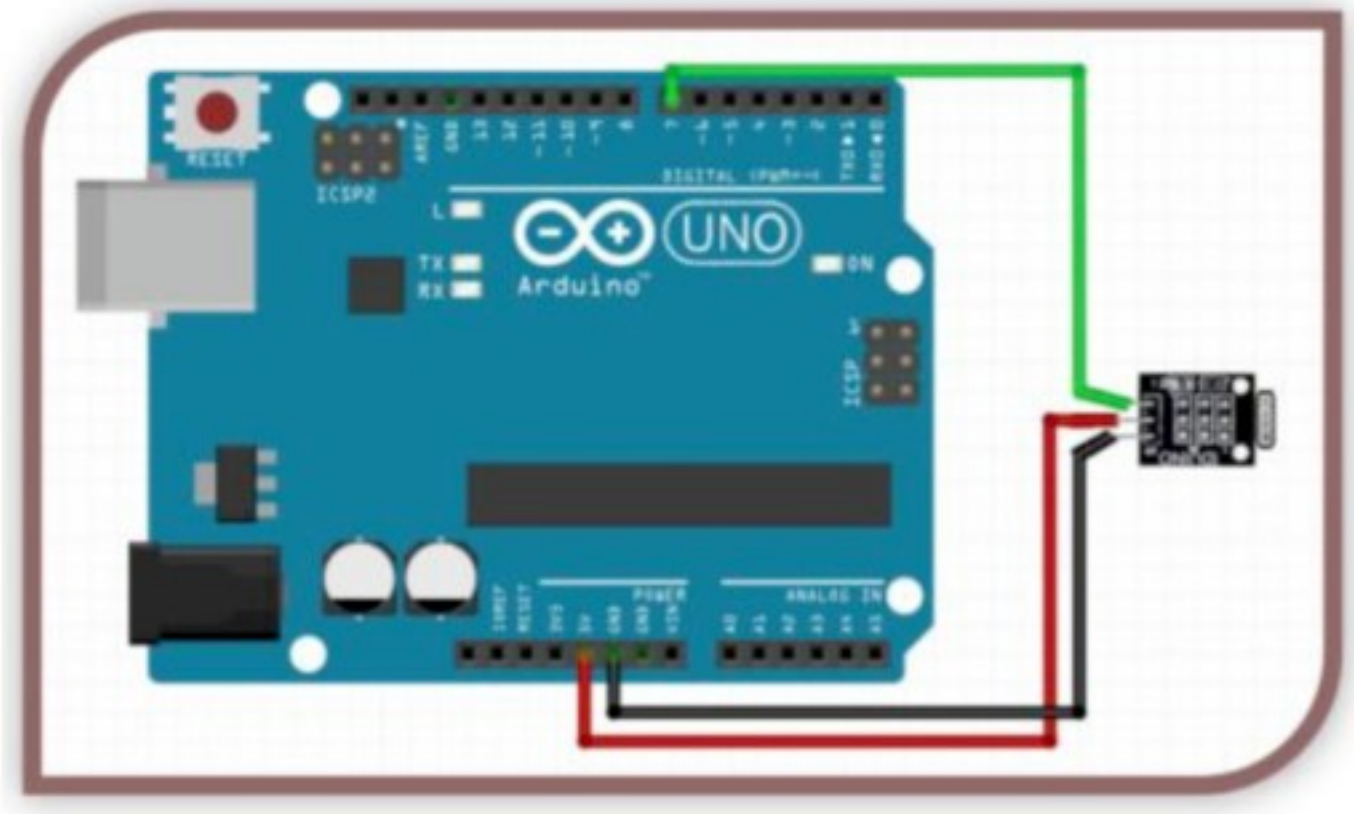
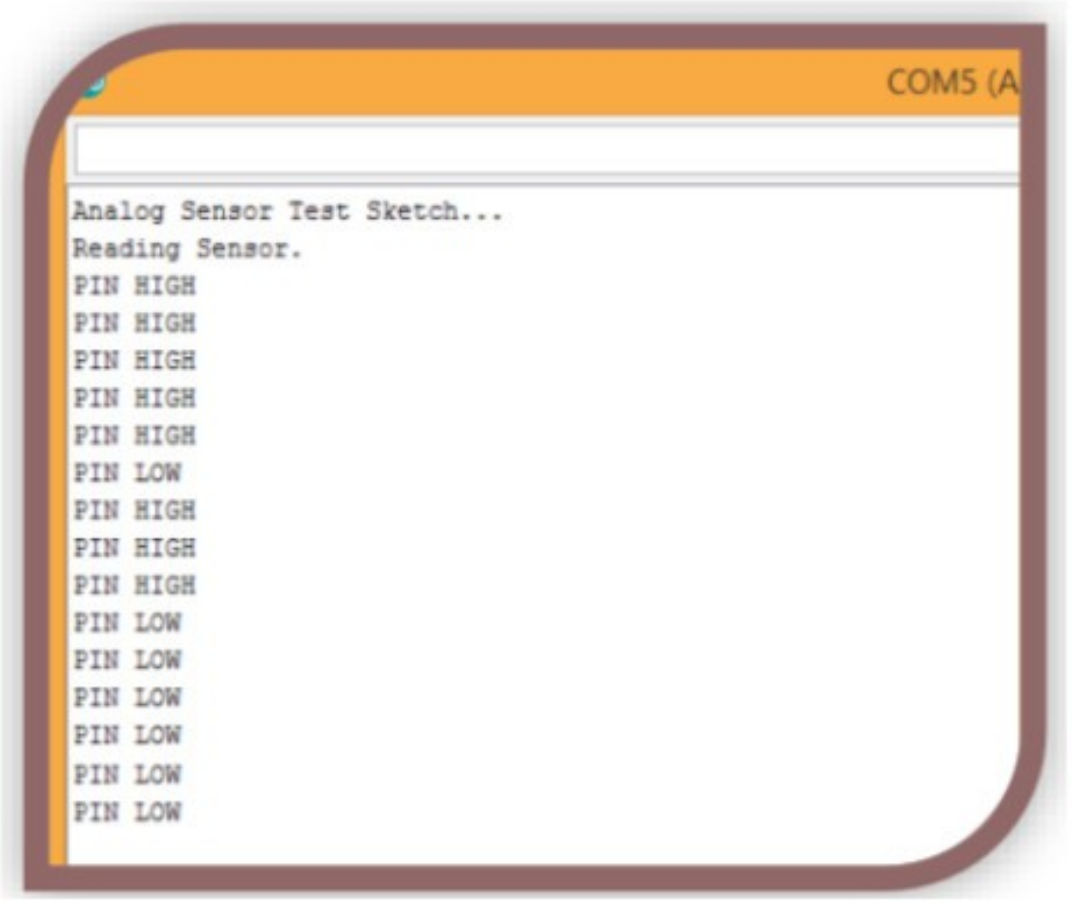
Tilt Switch

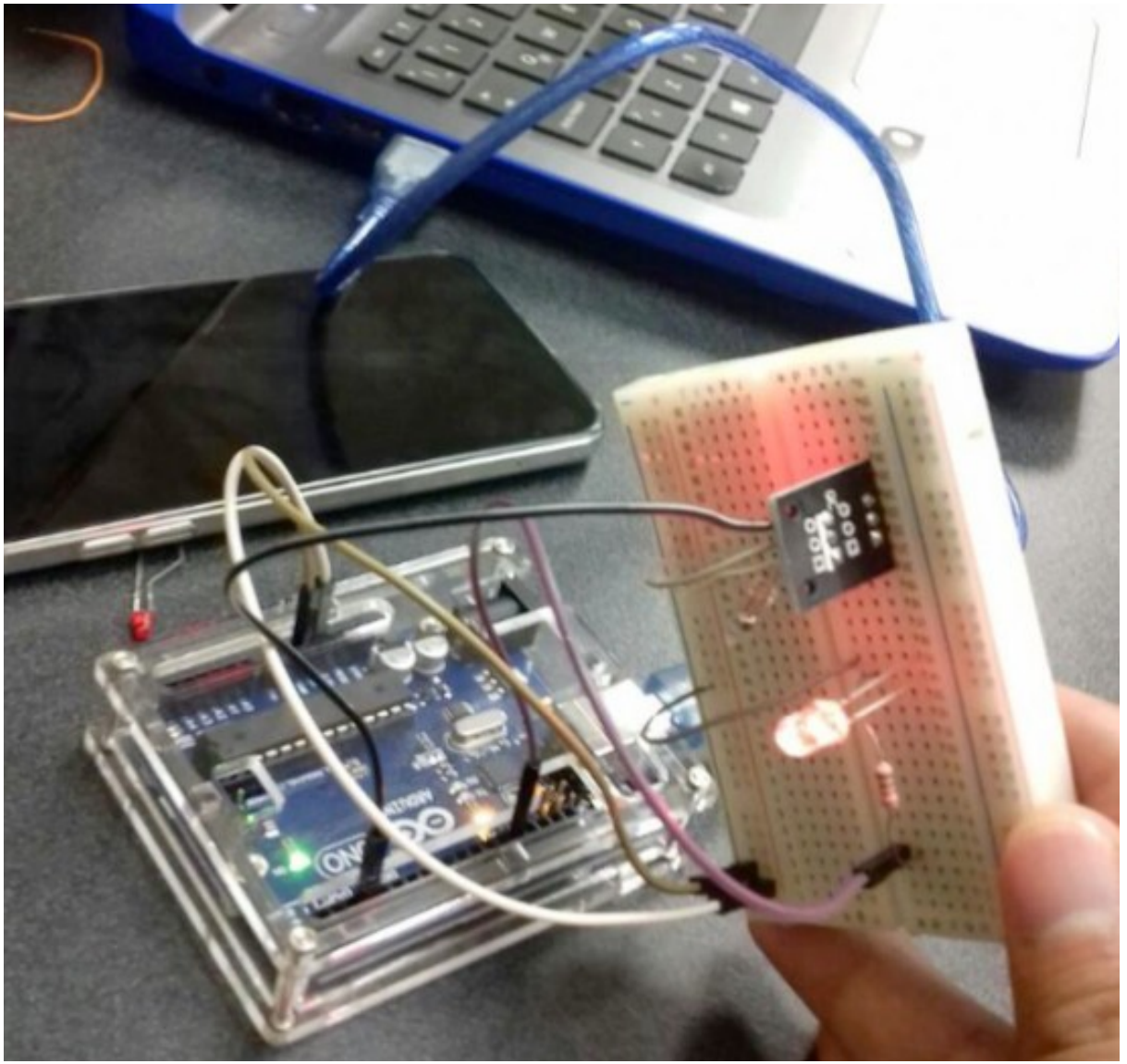


Tilt Switch

```
pinMode(3, OUTPUT);
}
void loop() {
 // put your main code here, to run repeatedly
merc1Val = digitalRead(2);
if (merc1Val == 1 && merc1LastVal == 0) {
 light1Val -= light1Val / 8;
 light2Val += light2Val / 8;
 light1State = 1;
 merc1LastVal = 1;
}
if (merc1Val == 0 && merc1LastVal == 1) {
 light1Val += light1Val / 8;
 light2Val -= light2Val / 8;
 light1State = 0;
 merc1LastVal = 0;
}
if (light1State) {
 light1Val--;
 light1Val = constrain(light1Val, 0, 255);
 light2Val++;
 light2Val = constrain(light2Val, 0, 255);
 analogWrite(3, light1Val);
 analogWrite(5, light2Val);
}
else {
 light1Val++;
 light1Val = constrain(light1Val, 0, 255);
 light2Val--;
 light2Val = constrain(light2Val, 0, 255);
 analogWrite(3, light1Val);
 analogWrite(5, light2Val);
}
}
```



Tilt Switch



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