



Circuit design Stunning Lappi | Ti x Chat with mentor x saravanasudhan/sudhan: ibm ass x Upload files - IBM-EPBL/IBM-Proj x +

tinkercad.com/things/cYLzQoswQsl-stunning-lappi/editel?tenant=circuits

Stunning Lappi

All changes saved

Code Start Simulation Send To

Text 1 (Arduino Uno R3)

```
1 #include<Servo.h>
2 const int pingPin = 7;
3 int servoPin = 8;
4
5 Servo servol;
6
7 void setup() {
8   Serial.begin(9600);
9   servol.attach(servoPin);
10  pinMode(2, INPUT);
11  pinMode(4, OUTPUT);
12  pinMode(11, OUTPUT);
13  pinMode(12, OUTPUT);
14  pinMode(13, OUTPUT);
15  pinMode(A0, INPUT);
16  digitalWrite(2, LOW);
17  digitalWrite(11, HIGH);
18
19 }
20
21 void loop() {
22
23   long duration, inches, cm;
24
25   pinMode(pingPin, OUTPUT);
26   digitalWrite(pingPin, LOW);
27   delayMicroseconds(2);
28   digitalWrite(pingPin, HIGH);
29   delayMicroseconds(5);
30   digitalWrite(pingPin, LOW);
31   pinMode(pingPin, INPUT);
32   duration = pulseIn(pingPin, HIGH);
33   inches = microsecondsToInches(duration);
34   cm = microsecondsToCentimeters(duration);
35   servol.write(0);
36
37 }
```

Serial Monitor

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```
36
37 if(cm < 40)
38 {
39   servomotor.write(90);
40   delay(2000);
41 }
42 else
43 {
44   servomotor.write(0);
45 }
46
47 int pir = digitalRead(2);
48
49 if(pir == HIGH)
50 {
51   digitalWrite(4,HIGH);
52   delay(1000);
53 }
54 else if(pir == LOW)
55 {
56   digitalWrite(4,LOW);
57 }
58
59 float value=analogRead(A0);
60 float temperature=value*0.48;
61
62 Serial.println("temperature");
63 Serial.println(temperature);
64
65 if(temperature > 60)
66 {
67   digitalWrite(12,HIGH);
68   digitalWrite(13,LOW);
69 }
70 else
71 {
72   digitalWrite(12,LOW);
```

Serial Monitor

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Text 1 (Arduino Uno R3)

```
49 if(pir == HIGH)
50 {
51   digitalWrite(4,HIGH);
52   delay(1000);
53 }
54 else if(pir == LOW)
55 {
56   digitalWrite(4,LOW);
57 }
58
59 float value=analogRead(A0);
60 float temperature=value*0.48;
61
62 Serial.println("temperature");
63 Serial.println(temperature);
64
65 if(temperature > 60)
66 {
67   digitalWrite(12,HIGH);
68   digitalWrite(13,LOW);
69 }
70 else
71 {
72   digitalWrite(12,LOW);
73   digitalWrite(13,LOW);
74 }
75 }
76
77 long microsecondsToInches(long microseconds) {
78   return microseconds / 74 / 2;
79 }
80
81 long microsecondsToCentimeters(long microseconds) {
82   return microseconds / 29 / 2;
83 }
84
```

Show / hide serial monitor

Serial Monitor