



FIAP

Engenharia de Software

EDGE COMPUTING & COMPUTER SYSTEMS

05 – Mood Lamp, Fire Effect, Mood Lamp e Piezo Sounder Melody Player



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Project 7

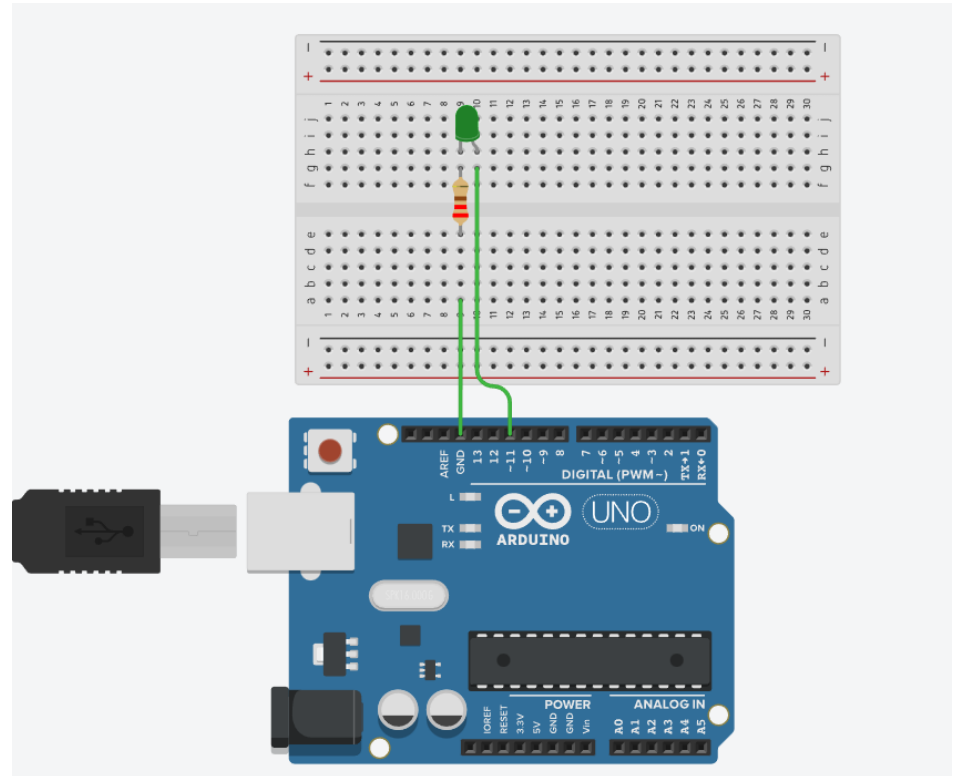
Pulsating Lamp

Pulsating Lamp

Vamos controlar a luminosidade do LED

Material necessário:

- 1 Arduino;
- 1 Resistores de 220 ohms
- 1 Led Verde;
- 1 Protoboard;
- Jumpers cables.



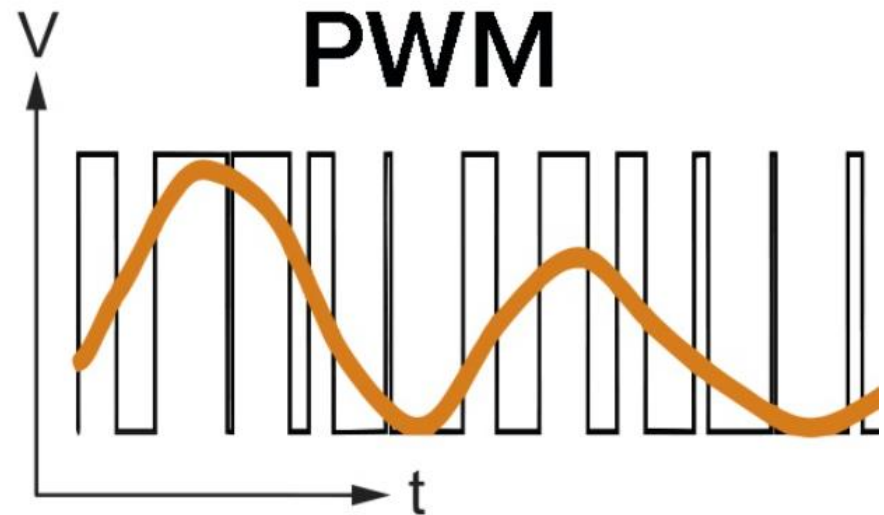
Pulsating Lamp

```
// Project 7 - Pulsating lamp

int ledPin = 11;
float sinVal;
int ledVal;

void setup() {
  pinMode(ledPin, OUTPUT);
}

void loop() {
  for (int x=0; x<180; x++) {
    // convert degrees to radians
    // then obtain sin value
    sinVal = (sin(x*(3.1412/180)));
    ledVal = int(sinVal*255);
    analogWrite(ledPin, ledVal);
    delay(25);
  }
}
```



Project 8

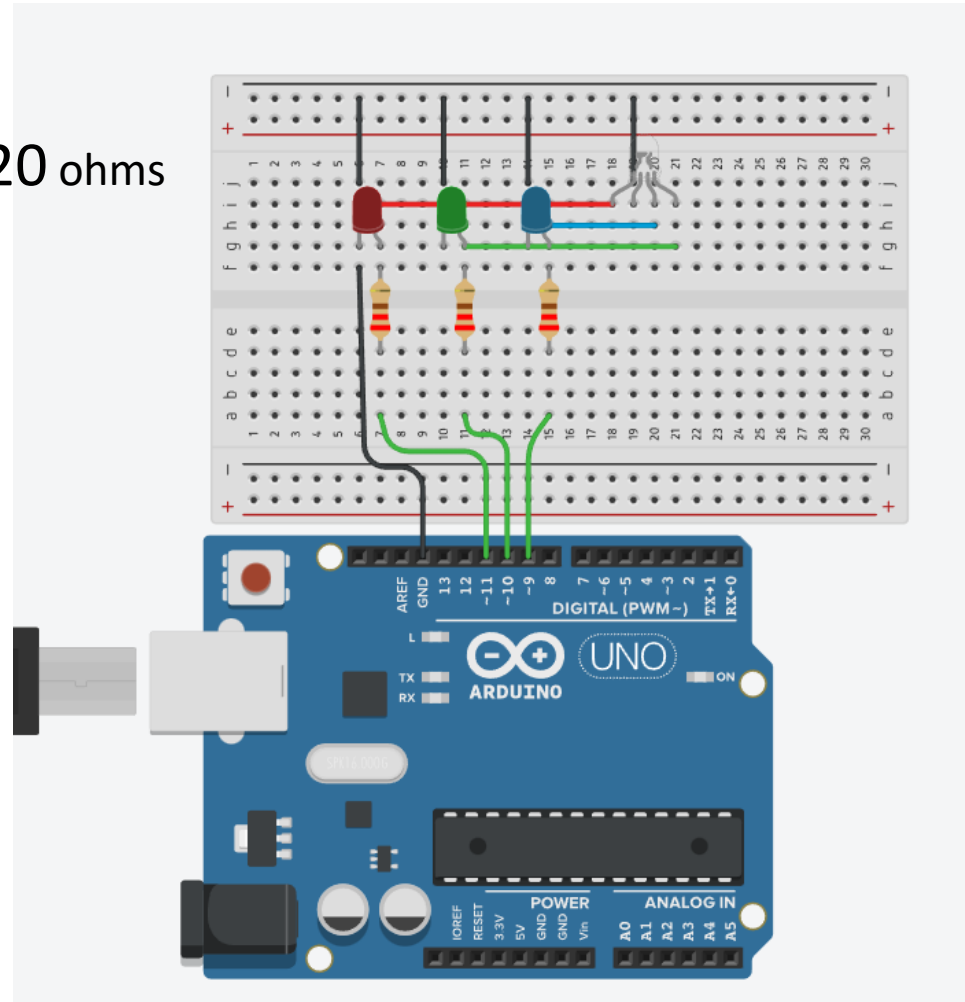
Mood Lamp

Mood Lamp

Vamos criar “novas” cores!

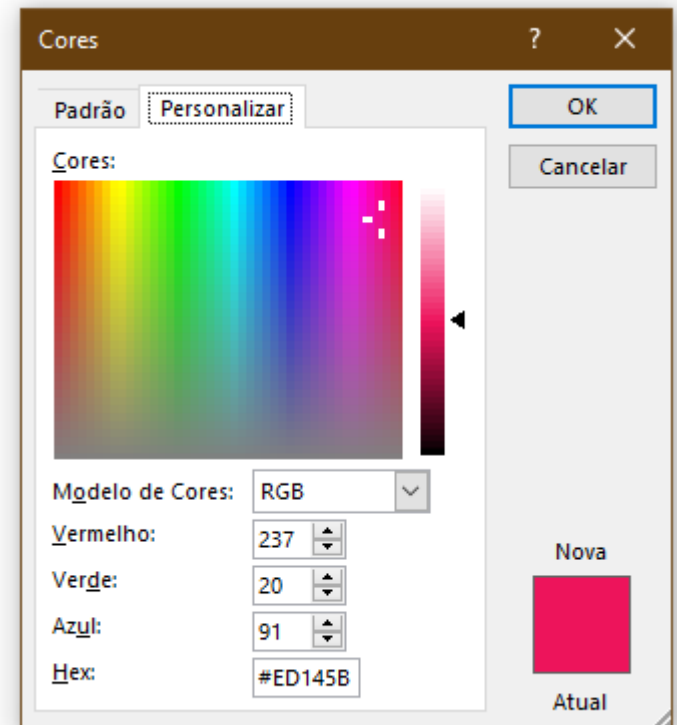
Material necessário:

- 1 Arduino;
- 3 Resistores de 220 ohms
- 1 Led Verde;
- 1 Led Vermelho;
- 1 Led azul;
- 1 Protoboard;
- Jumpers cables.



Mood Lamp

Red	Green	Blue	Colour
255	0	0	Red
0	255	0	Green
0	0	255	Blue
255	255	0	Yellow
0	255	255	Cyan
255	0	255	Magenta
255	255	255	White



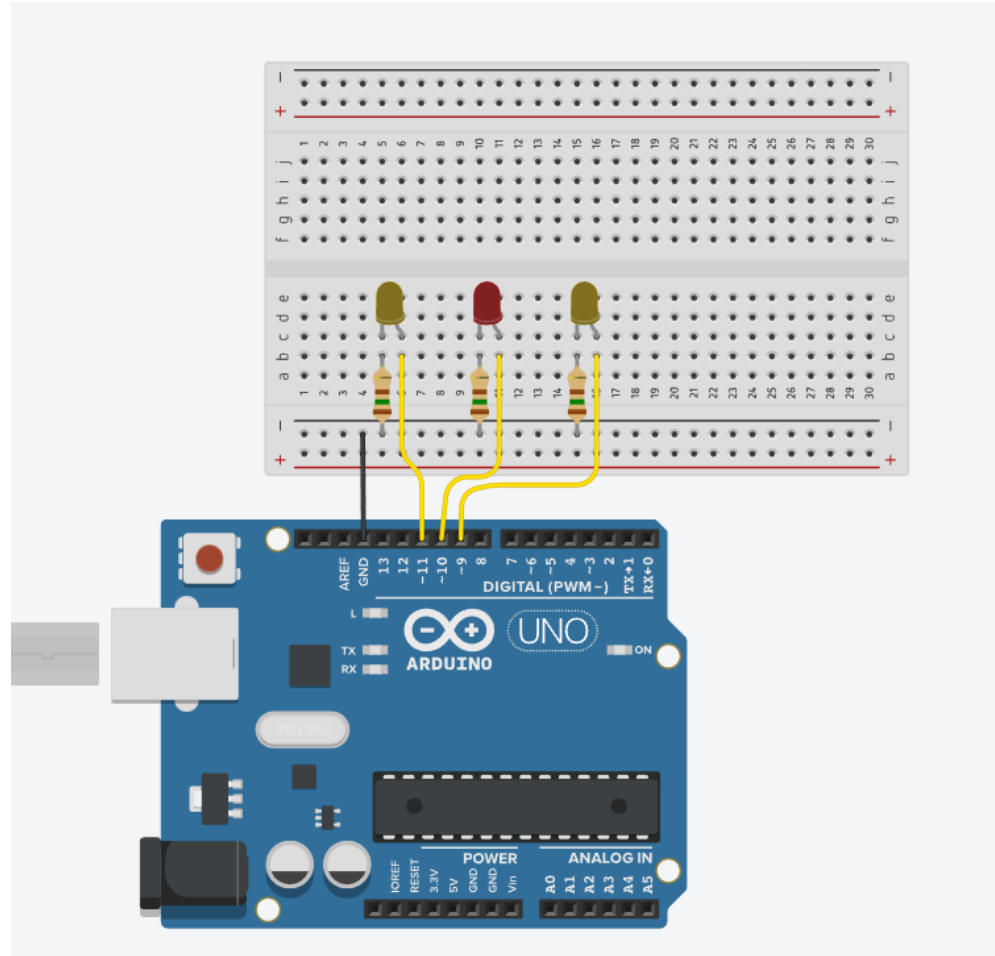
Project 9

LED Fire Effect

Vamos criar uma “fogueira”

Material necessário:

- 1 Arduino;
- 3 Resistores de 220 ohms
- 2 Led Amarelo;
- 1 Led Vermelho;
- 1 Protoboard;
- Jumpers cables.



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