



FIAP

Engenharia de Software

EDGE COMPUTING & COMPUTER SYSTEMS

06 – Presence Sensor, Ultrasonic Radar e Piezo Sounder Melody Player

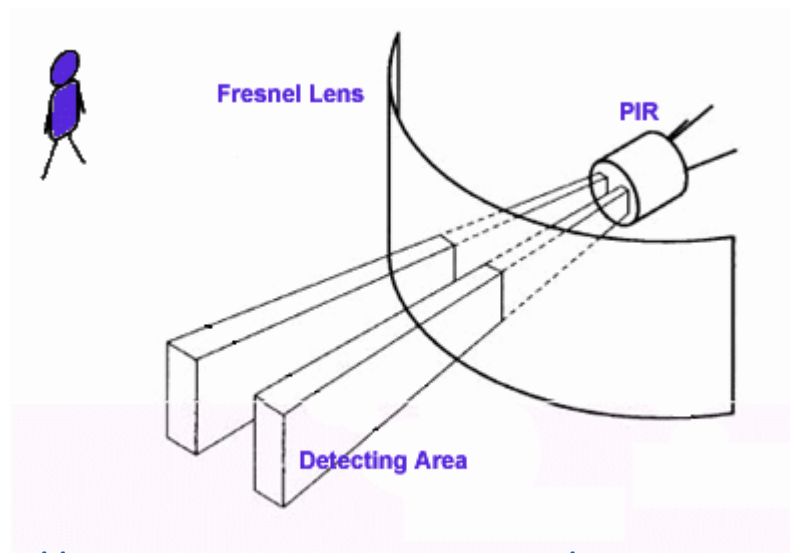
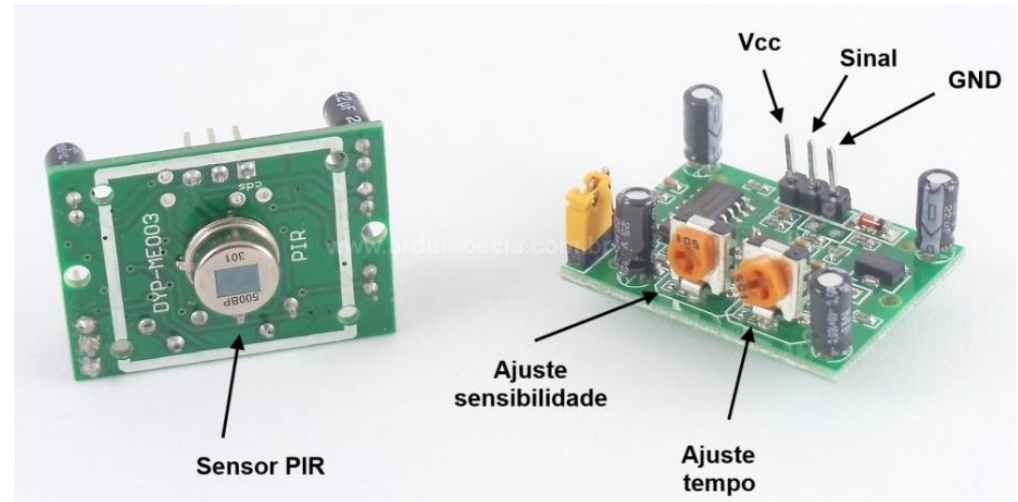


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Presence Sensor (PIR)



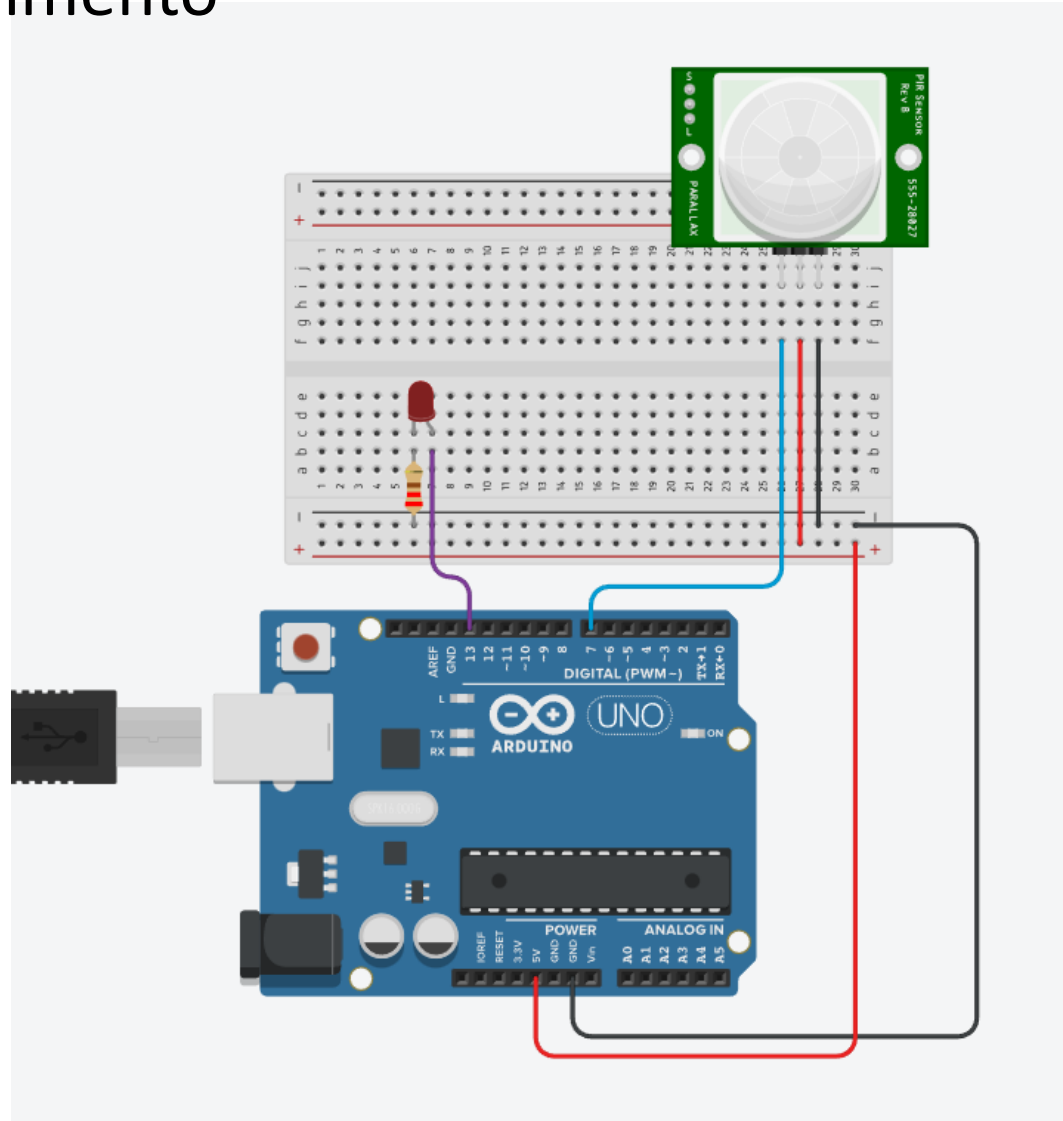
Leia o datasheet: <https://www.arduinoecia.com.br/downloads/Datasheet-Sensor-PIR-DYP-ME003-SEN005.pdf>.

Presence Sensor (PIR)

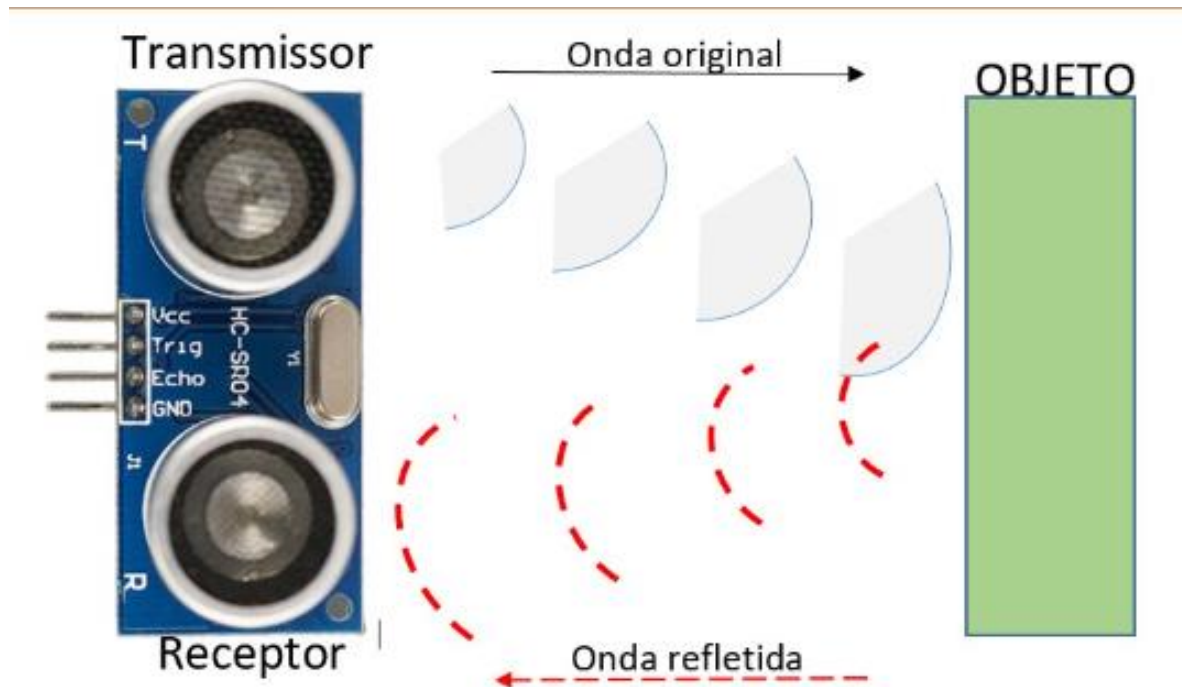
Vamos detectar movimento

Material necessário:

- 1 Arduino;
- 1 Sensor de Presença
- 1 Resistor de 220 ohms
- 1 Led Vermelho;
- 1 Protoboard;
- Jumpers cables.



Ultrasonic Radar



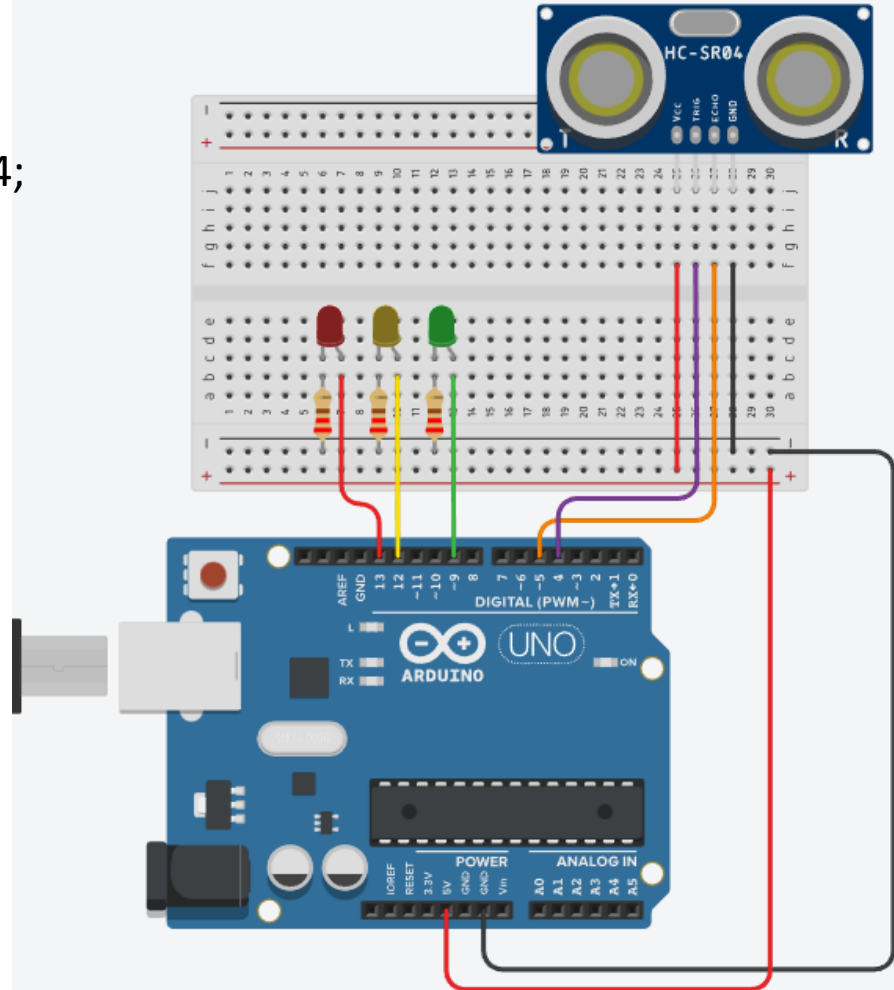
Distância de um objeto = $((\text{velocidade do som no ar}) \times \text{tempo}) / 2$

Ultrasonic Radar

Vamos medir distâncias

Material necessário:

- 1 Arduino;
- 1 Sensor Ultrasonico HC-SR04;
- 3 Resistores de 220 ohms
- 1 Led Verde;
- 1 Led Vermelho;
- 1 Led Amarelo;
- 1 Protoboard;
- Jumpers cables.

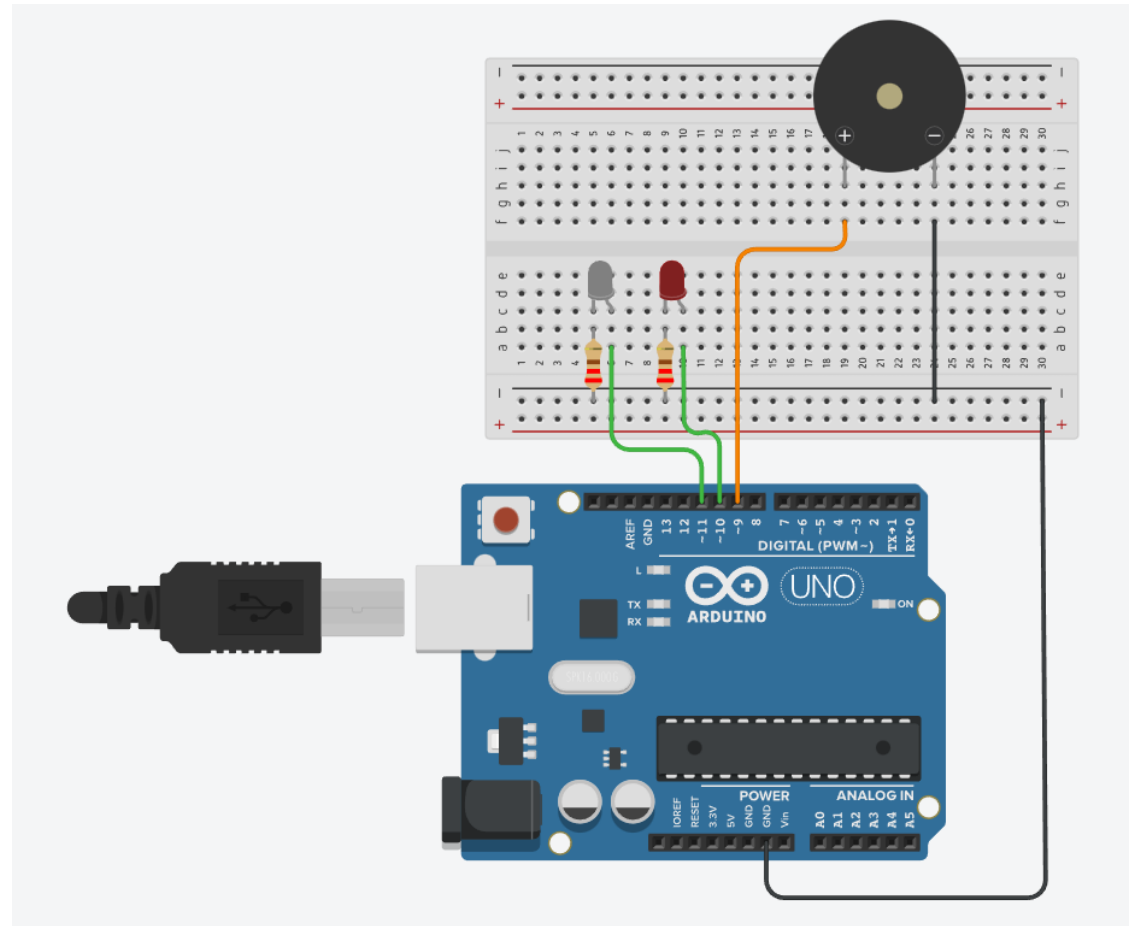


Piezo Sounder Melody

Vamos montar uma “banda”

Material necessário:

- 1 Arduino;
- 1 Buzzer;
- 1 LED Vermelho;
- 1 LED Branco;
- 2 Resistores de 220 ohms;
- 1 Protoboard;
- Jumpers cables.



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