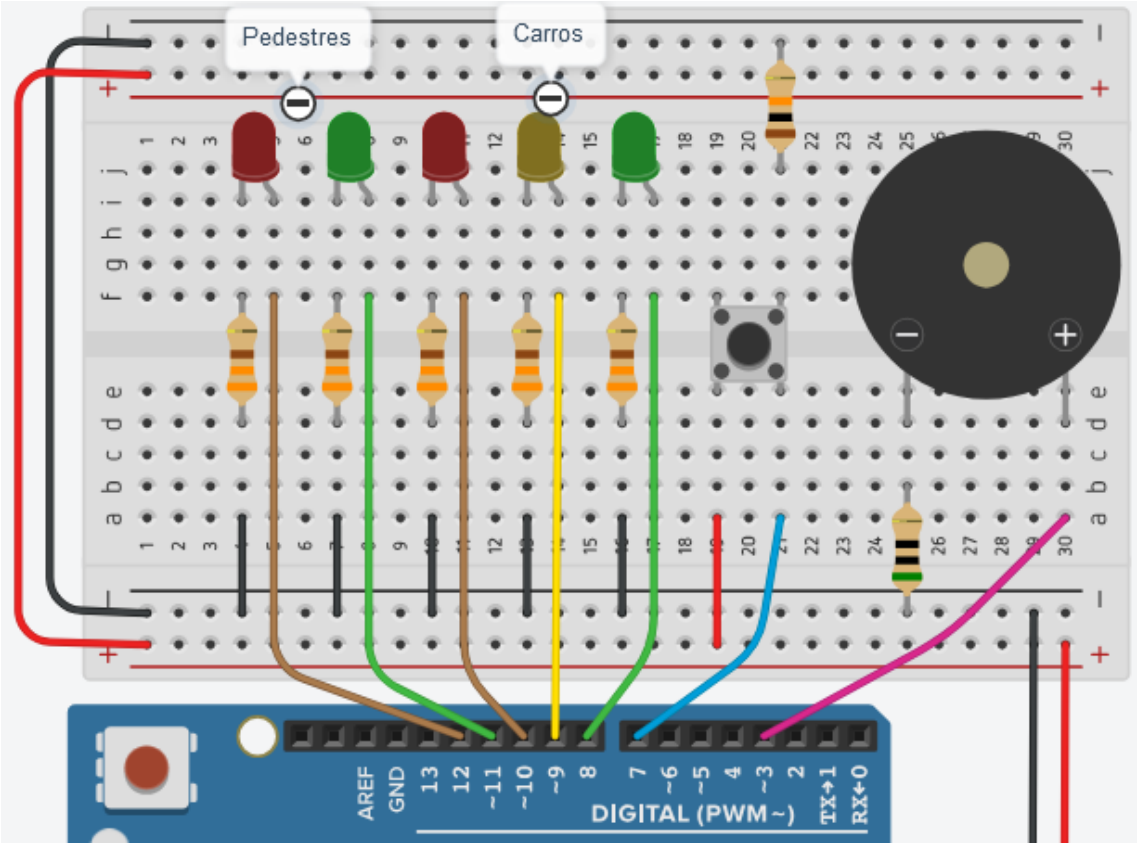
Pedestres
Carros
AREF
GND
13
12
~11
~10
~9
8
7
~6
~5
4
~3
2
TX→1
RX←0
DIGITAL (PWM~)

```
int leds[] = {12, 11, 10, 9, 8};
int qtdLeds = 5;

int pinBotao = 7;
int pinBuzzer = 3;

void setup()
{
  for (int i=0; i<qtdLeds; i++)
    pinMode(leds[i], OUTPUT);

  pinMode(pinBotao, INPUT);
  pinMode(pinBuzzer, OUTPUT);

  //testaHardware();
}

void loop()
{
  //testaBotao();
  ConfiguracaoInicial();

  if (digitalRead(pinBotao)==HIGH) {
    SequenciaPedestre();
  }
}

void ConfiguracaoInicial() {
  Arduino(1, 0, 0, 0, 1, 0); // Red/Green/Off
}
```

```
void SequenciaPedestre() {
  Arduino(1, 0, 0, 1, 0, 0); // Red/Yellow/Off
  delay(1000);
  Arduino(1, 0, 1, 0, 0, 0); // Red/Red/Off
  delay(1000);

  // Verde pedestres e buzzer lento
  for (int i=0; i<3; i++) {
    Arduino(0, 1, 1, 0, 0, 1); // Green/Red/On
    delay(500);
    Arduino(0, 1, 1, 0, 0, 0); // Green/Red/Off
    delay(500);
  }

  // Vermelho piscando rápido junto com o buzzer
  for (int i=0; i<6; i++) {
    Arduino(1, 0, 1, 0, 0, 1); // Red/Red/On
    delay(250);
    Arduino(0, 0, 1, 0, 0, 0); // Off/Red/Off
    delay(250);
  }
  Arduino(1, 0, 1, 0, 0, 0); // Red/Red/Off
  delay(1000);
}

void Arduino(int pR, int pG, int cR,
             int cY, int cG, int buzzer) {
    digitalWrite(leds[0], pR);
    digitalWrite(leds[1], pG);
    digitalWrite(leds[2], cR);
    digitalWrite(leds[3], cY);
    digitalWrite(leds[4], cG);
    digitalWrite(pinBuzzer, buzzer);
}
```

```
void testaHardware() {
  for (int contador=0; contador<3; contador++) {

    for (int i=0; i<qtdLeds; i++) {
      digitalWrite(leds[i], HIGH);
    }

    digitalWrite(pinBuzzer, HIGH);
    delay(500);

    for (int i=0; i<qtdLeds; i++) {
      digitalWrite(leds[i], LOW);
    }

    digitalWrite(pinBuzzer, LOW);
    delay(500);
  }

}

void testaBotao() {
  if(digitalRead(pinBotao)==HIGH){
    digitalWrite(pinBuzzer, HIGH);
  } else {
    digitalWrite(pinBuzzer, LOW);
  }
}
```