dado[1]

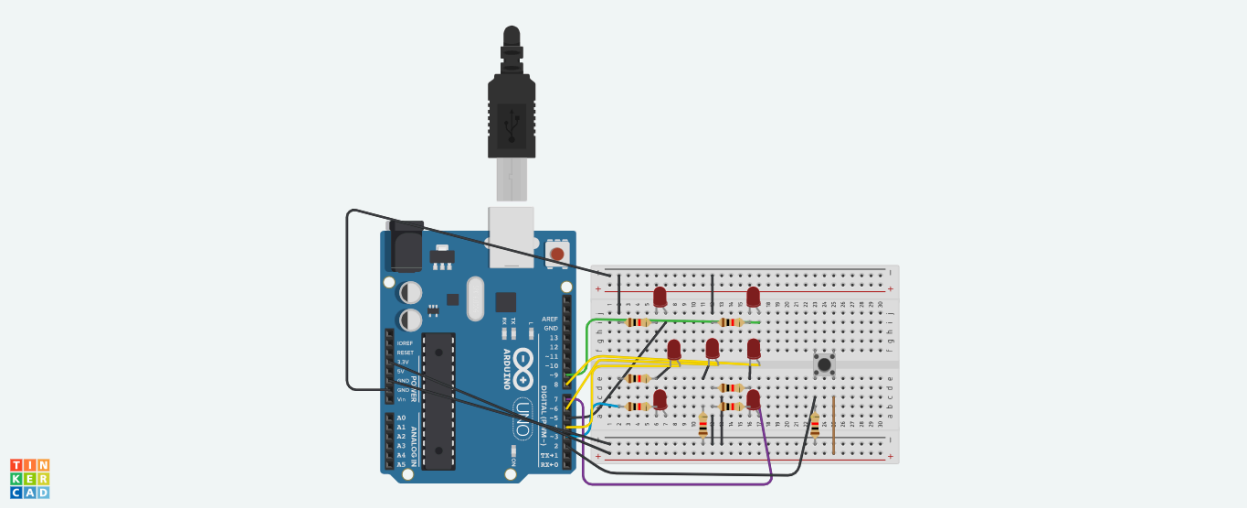
Neste projeto iremos desenvolver um dado utilizando arduino

Materiais necessários:

- 7 x leds
- 1 x placa de ensaio
- 8 x resistores
- 18 x Jumpers macho-macho
- 1 x botão

Pinagem

[1] disponivel em :https://github.com/matheushenriquecursino/dado-arduino.git



Código

```
int button = 2;
int bottomleft = 3;
int middleleft = 4;
int upperleft = 5;
int middle = 6;
int bottomright = 7;
int middleright = 8;
int upperright = 9;
int state = 0;
long randNumber;

void setup() {

  pinMode (bottomleft, OUTPUT);
  pinMode (middleleft, OUTPUT);
  pinMode (upperleft, OUTPUT);
  pinMode (middle, OUTPUT);
  pinMode (bottomright, OUTPUT);
  pinMode (middleright, OUTPUT);
  pinMode (upperright, OUTPUT);
  pinMode (button, INPUT);

  Serial.begin (9600);

  randomSeed (analogRead(0));
}

void loop (){

  if(digitalRead(button) ==HIGH && state ==0){
    state = 1;
    randNumber = random (1,7);
    delay (100);
      Serial.println(randNumber);
```

```
    if(randNumber == 6){
      six();
    }
    if(randNumber == 5){
      five();
    }
    if(randNumber == 4){
      four();
    }
    if(randNumber == 3){
      three();
    }
    if(randNumber == 2){
      two();
    }
    if(randNumber == 1){
      one();
    }

    delay (1000);
    clearAll();
    state = 0;
  }
}

void six (){
  digitalWrite (bottomleft, HIGH);
  digitalWrite (middleleft, HIGH);
  digitalWrite (upperleft, HIGH);
  digitalWrite (bottomright, HIGH);
  digitalWrite (middleright, HIGH);
  digitalWrite (upperright, HIGH);
}

void five(){

  digitalWrite (bottomleft, HIGH);
  digitalWrite (middle, HIGH);
  digitalWrite (upperleft, HIGH);
  digitalWrite (bottomright, HIGH);
  digitalWrite (upperright, HIGH);
}

void four (){
  digitalWrite (bottomleft, HIGH);
  digitalWrite (upperleft, HIGH);
  digitalWrite (bottomright, HIGH);
  digitalWrite (upperright, HIGH);
}

void three (){
  digitalWrite (middle, HIGH);
  digitalWrite (upperleft, HIGH);
```

```
  digitalWrite (bottomright, HIGH);
}

void two(){
  digitalWrite (bottomleft, HIGH);
  digitalWrite (upperright, HIGH);
}

void one(){
  digitalWrite (middle, HIGH);
}

void clearAll (){
  digitalWrite (bottomleft,  LOW);
  digitalWrite (middleleft, LOW);
  digitalWrite (middle, LOW);
  digitalWrite (upperleft, LOW);
  digitalWrite (bottomright, LOW);
  digitalWrite (middleright, LOW);
  digitalWrite (upperright, LOW);
}
```