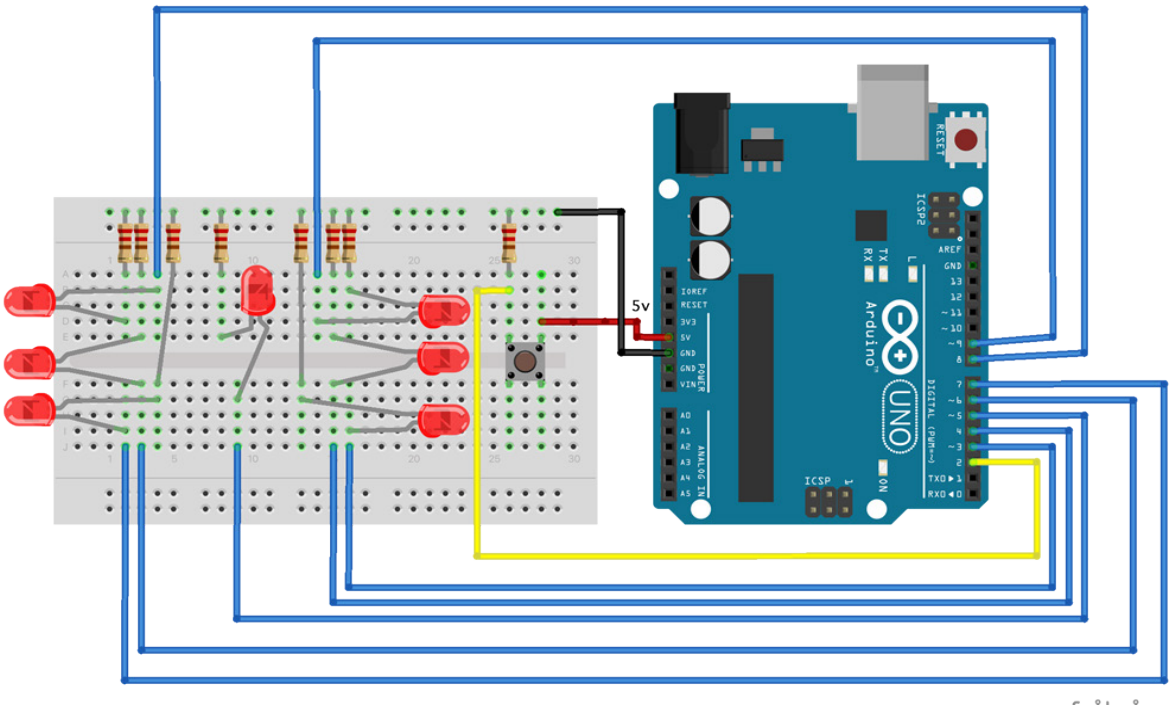
5




```
/*
Arduino Dice - step 3: A dice made from seven LED
+ one BUTTON
 Created 27 Mar 2022
 By Fred Voorhorst
 See: www.educati.ch

 This example code is in the public domain.
*/

int BUTTON = 2;
int LED1 = 3;
int LED2 = 4;
int LED3 = 5;
int LED4 = 6;
int LED5 = 7;
int LED6 = 8;
int LED7 = 9;

#define DEBUG 1

void setAllLED(int value) {
  digitalWrite(LED1, value);
  digitalWrite(LED2, value);
  digitalWrite(LED3, value);
  digitalWrite(LED4, value);
  digitalWrite(LED5, value);
  digitalWrite(LED6, value);
  digitalWrite(LED7, value);
}

int throwDice() {
  // get a random number in the range [1,6]
  int randNumber = random(1,7);

  return randNumber;
}

void showNumber(int eyes){

  #ifdef DEBUG
  Serial.print("eyes: ");
  #endif

  if(eyes == 1) {
  digitalWrite(LED4, HIGH);
  #ifdef DEBUG
  Serial.println(eyes);
  #endif
  }
  else if (eyes == 2) {
  digitalWrite(LED3, HIGH);
  digitalWrite(LED5, HIGH);
  #ifdef DEBUG
  Serial.println(eyes);
  #endif
  }
  else if (eyes == 3) {
  digitalWrite(LED1, HIGH);
  digitalWrite(LED4, HIGH);
  digitalWrite(LED7, HIGH);
```

```
  #ifdef DEBUG
  Serial.println(eyes);
  #endif
  }
  else if (eyes == 4) {
  digitalWrite(LED1, HIGH);
  digitalWrite(LED3, HIGH);
  digitalWrite(LED5, HIGH);
  digitalWrite(LED7, HIGH);
  #ifdef DEBUG
  Serial.println(eyes);
  #endif
  }
  else if (eyes == 5) {
  digitalWrite(LED1, HIGH);
  digitalWrite(LED3, HIGH);
  digitalWrite(LED4, HIGH);
  digitalWrite(LED5, HIGH);
  digitalWrite(LED7, HIGH);
  #ifdef DEBUG
  Serial.println(eyes);
  #endif
  }
  else if (eyes == 6) {
  digitalWrite(LED1, HIGH);
  digitalWrite(LED2, HIGH);
  digitalWrite(LED3, HIGH);
  digitalWrite(LED5, HIGH);
  digitalWrite(LED6, HIGH);
  digitalWrite(LED7, HIGH);
  #ifdef DEBUG
  Serial.println(eyes);
  #endif
  };
}

void setup() {
  // put your setup code here, to run once:
  // set all LED pins to OUTPUT
  pinMode(LED1, OUTPUT);
  pinMode(LED2, OUTPUT);
  pinMode(LED3, OUTPUT);
  pinMode(LED4, OUTPUT);
  pinMode(LED5, OUTPUT);
  pinMode(LED6, OUTPUT);
  pinMode(LED7, OUTPUT);

  // set buttin pin to INPUT
  pinMode(BUTTON, INPUT);

  // initialize random seed by noise from analog pin 0
(should be unconnected)
  randomSeed(analogRead(0));
  // if we're debugging, connect to serial
  #ifdef DEBUG
    Serial.begin(9600);
  #endif

  //Show all leds work
  for(int i=1; i<=6; i++) {
  showNumber(i);
  delay(500);
  setAllLED(LOW);
  delay(300);
  }
}



void loop() {
  // put your main code here, to run repeatedly:
  int p = digitalRead(BUTTON);

  if (p == HIGH) {

  setAllLED(LOW);
  delay(100);
  setAllLED(HIGH);
  delay(100);
  setAllLED(LOW);
  delay(100);
  setAllLED(HIGH);
  delay(100);
  setAllLED(LOW);
  delay(100);
  setAllLED(HIGH);
  delay(100);
  setAllLED(LOW);
  delay(300);

  int thrownNumber = throwDice();
  showNumber(thrownNumber);
  delay(1000);
  setAllLED(LOW);
  }

}
```

https://www.educati.ch/arduino-digital-dice