**Project 4:**

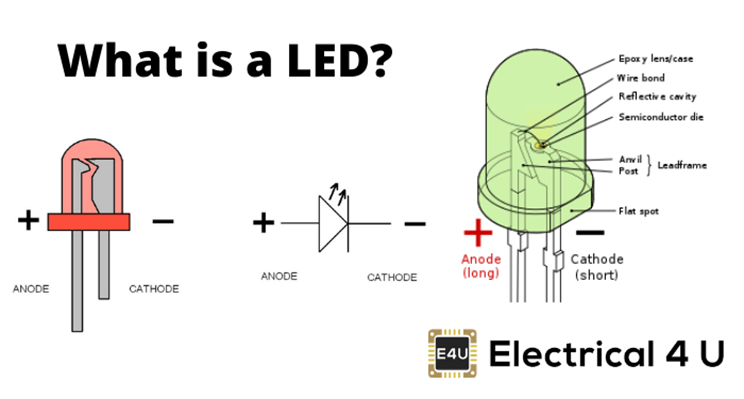
**Control Led using Push Button**

**Description**: In this project , we will learn how a led is controlled by a push button.

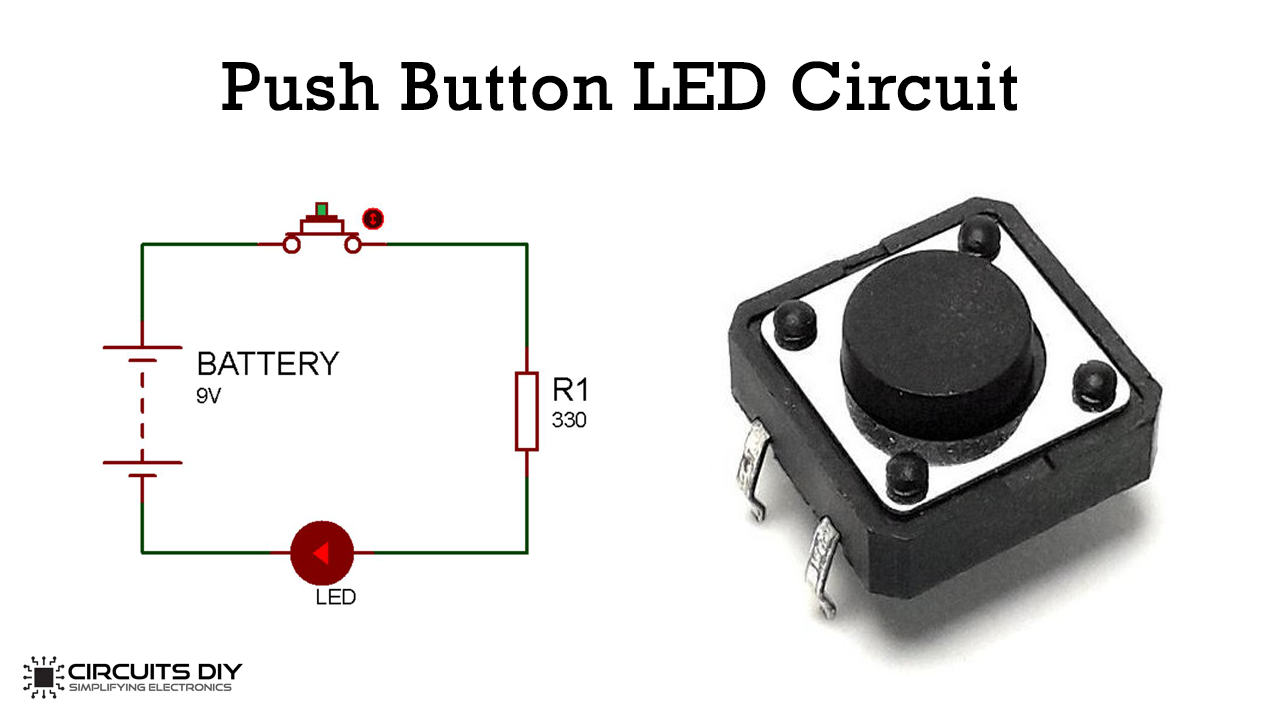
**Required Hardware:**

* Arduino Uno.
* Breadboard.
* Jumper wire.
* 6 LED
* Resistor.
* USB type A/B.
* Push button

**LED**:



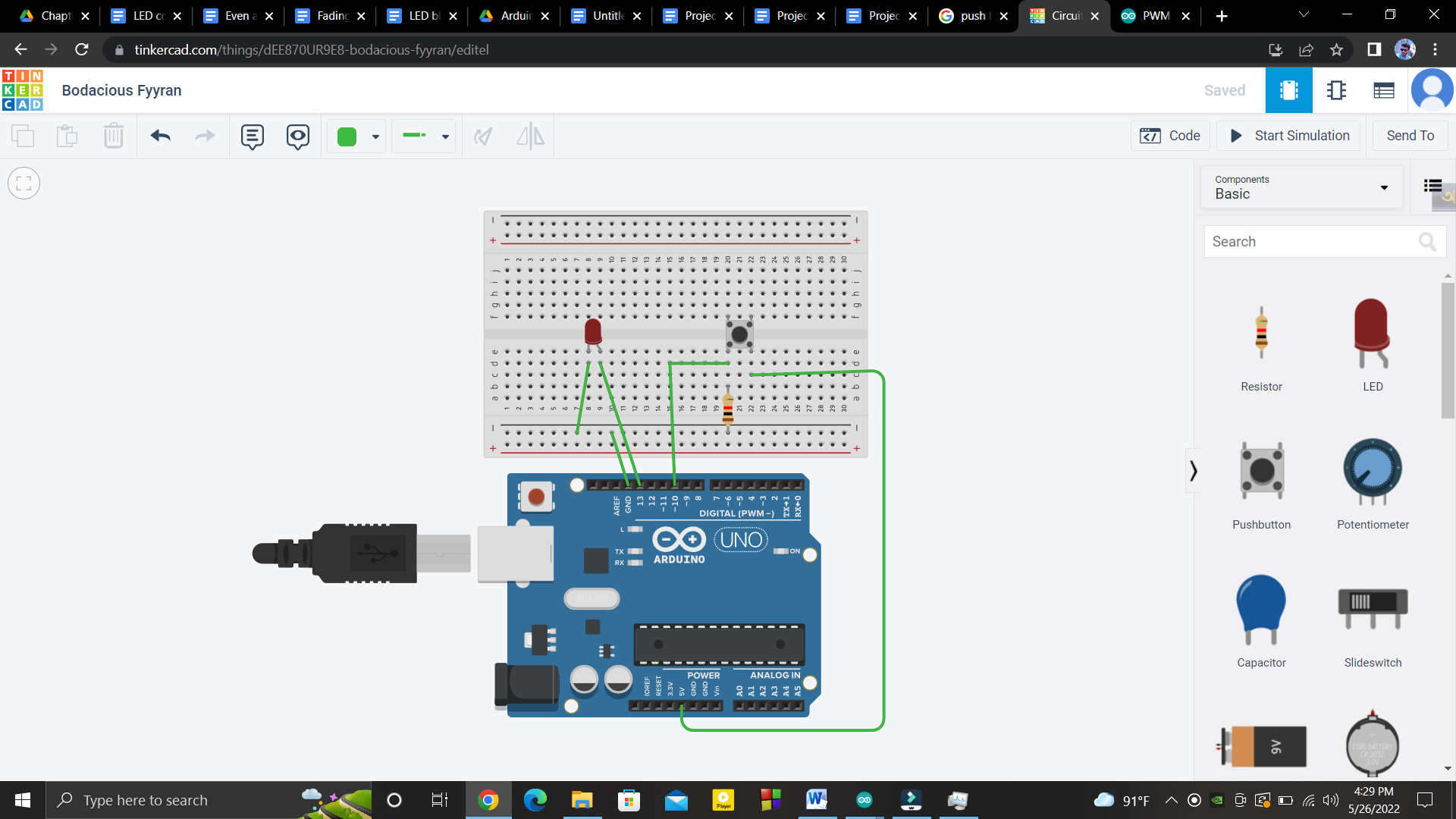
**Push Button:**

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**Specifications:**

* Mode of operation: Tactile feedback
* Power Rating: MAX 50mA 24V DC
* Insulation Resistance: 100 Mohm at 100v
* Operating Force: 2.55± 0.69 N
* Operating Temperature: -20 to +70 ℃

**Circuit Diagram:**

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**Pin Configuration:**

* Arduino’s +5V connect to button’s one hand
* And button’s another hand connect to arduino’s pin 10 and buttons this hand also connected to a resistor to GND.
* Led’s anode connected to arduino’s pin 13.
* And led’s cathod connected to the GND.

**Code:**

|  |
| --- |
| int pin1=13; int pin2=10; int pin3;   void setup() {   pinMode(pin1, OUTPUT);   pinMode(pin2,INPUT); }   void loop() {  pin3= digitalRead(pin2);   if(pin3==1)   {   digitalWrite(pin1,HIGH);   }   else   {    digitalWrite(pin1,LOW);   } } |