

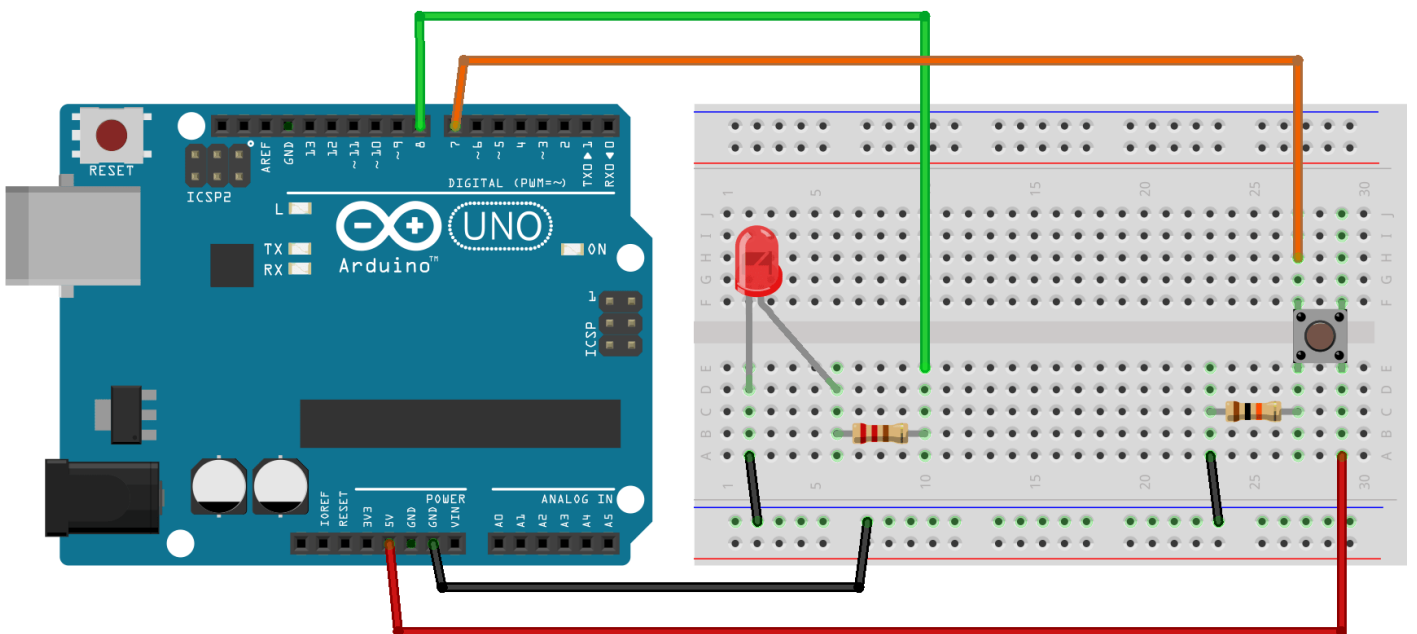
3. Arduino - Turn LED ON and OFF With Button

[Turn LED ON and OFF With Button Tutorial](#)

Equipment

- 1x Arduino Uno
- 1x USB 2.0 cable type A/B (for USB-A PC)
- 1x USB 2.0 cable type C/B (for USB-C PC)
- 1x Push Button
- 1x Push Button Module
- 1x breadboard
- 6x Jumper wires
- 1x LED
- 1x 220 Ohm resistor
- 1x 10k Ohm resistor

Project Set-up



Code to turn light on when button is held:

```
1. #define LED_PIN 8
2. #define BUTTON_PIN 7
3.
4. void setup() {
5.     pinMode(LED_PIN, OUTPUT);
6.     pinMode(BUTTON_PIN, INPUT);
7. }
8.
9. void loop() {
10.    if (digitalRead(BUTTON_PIN) == HIGH) {
11.        digitalWrite(LED_PIN, HIGH);
12.    }
13.    else {
14.        digitalWrite(LED_PIN, LOW);
15.    }
16. }
```

Code to turn button on and off LED with button:

```
1. #define LED_PIN 8
2. #define BUTTON_PIN 7
3.
4. byte lastButtonState = LOW;
5. byte ledState = LOW;
6.
7. void setup() {
8.     pinMode(LED_PIN, OUTPUT);
9.     pinMode(BUTTON_PIN, INPUT);
10. }
11.
12. void loop() {
13.     byte buttonState = digitalRead(BUTTON_PIN);
14.     if (buttonState != lastButtonState) {
15.         lastButtonState = buttonState;
16.         if (buttonState == LOW) {
17.             ledState = (ledState == HIGH) ? LOW: HIGH;
18.             digitalWrite(LED_PIN, ledState);
19.         }
20.     }
21. }
```

Revision #2

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