

## 5. Sticky On/Off Button

Lets program a second behaviour that to make the button "stick".

### Code

```
/* Turn on LED when the button is pressed  
and keep it on after it is released */

const int buttonPin = 2;
const int ledPin = 13;

int val = 0;           // val will be used to store the state of the input pin
int old_val = 0;       // this variable stores the previous value of "val"
int buttonState = 0;   // variable that will store the pushbutton status

void setup() {
  // initialize the LED pin as an output  
// & the pushbutton pin as an input  
  pinMode(ledPin, OUTPUT);  
  pinMode(buttonPin, INPUT);
}

void loop() {
  // read the state of the pushbutton value:  
  val = digitalRead(buttonPin);

  // check if there was a transition  
  if ((val == HIGH) && (old_val == LOW)) {  
    buttonState = 1 - buttonState;  
    delay(10);    // small delay for debouncing  
  }

  old_val = val; // val is now old, let's store it

  // check if the pushbutton is pressed. If it is, the buttonState is HIGH:  
  if (buttonState == 1) {  
    digitalWrite(ledPin, HIGH); // turn LED on  
  } else {  
    digitalWrite(ledPin, LOW);  // turn LED off  
  }
}
```