

Pushbutton as Switch

/*

This example demonstrates the use of `pinMode(INPUT_PULLUP)`. It reads a digital input on pin A5 and ON the LED connected to 31 When pushbutton is pressed then activate the LED again pressed deactivate the LED.

The circuit:

- momentary switch attached from pin A5 to ground
- First Press LED on second Press LED on and so on

Unlike `pinMode(INPUT)`, there is no pull-down resistor necessary. An internal 20K-ohm resistor is pulled to 5V. This configuration causes the input to read HIGH when the switch is open, and LOW when it is closed.

*/

```
bool flag;
```

```
void setup() {
```

```
//start serial connection
```

```
Serial.begin(115200);
```

```
//configure pin 2 as an input and enable the internal pull-up resistor
```

```
pinMode(A5, INPUT_PULLUP);
```

```
pinMode(31, OUTPUT);
```

```
digitalWrite(31,LOW ); // Relay off
```

```
}
```

```
void loop() {
```

```
//read the pushbutton value into a variable
```

```
int Val = digitalRead(A5);
```

```
//print out the value of the pushbutton
```

```
Serial.print("\n Value");
```

```
Serial.print(Val);
```

```
// Keep in mind the pull-up means the pushbutton's logic is inverted. It goes
```

```
// HIGH when it's open, and LOW when it's pressed. Turn on pin 8,9 when the
```

```
// button's pressed, and off when it's not:
```

```
if (Val != HIGH) {
```

```
if(flag !=HIGH)
```

```
flag =HIGH;
```

```
else
flag =LOW;
}

//print out the value of the pushbutton
Serial.print("\n Flag");
Serial.print(flag);

if(flag==HIGH)
digitalWrite(31,HIGH);
if(flag==LOW)
digitalWrite(31,LOW);

delay(1000);
}
```