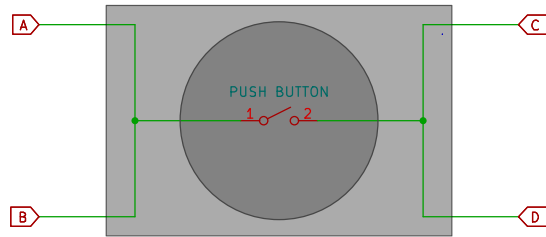


DIGITAL INPUT – PUSHBUTTON

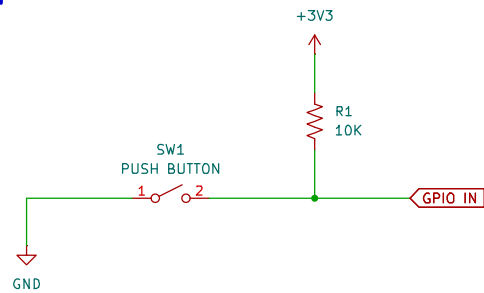
This is a simple momentary pushbutton switch, used for manually & momentarily breaking circuit paths.

- A & B are always connected.
- C & D are always connected.
- When button is pressed, switch is closed...
- ...any signal present at either A or B will be present at C & D, and vice-versa.



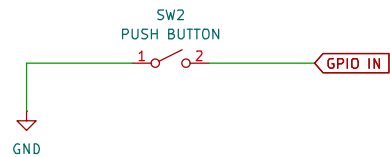
BUTTON: PULL-UP

External PullUp



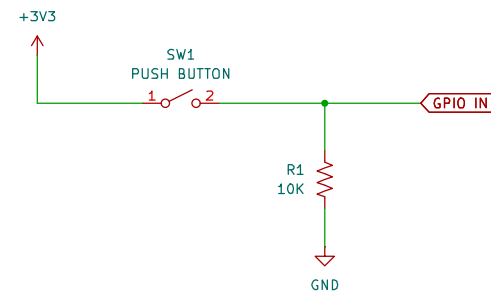
- Button is "pulled-up" to +3V3 when not pressed.
- When button is open, GPIO reads 1.
- When button is closed (button pressed), GPIO reads 0.
- Many MCUs have Internal PullUp resistors, but these must be enabled in software.

Internal PullUp



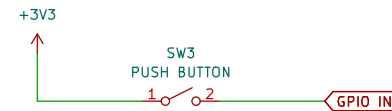
BUTTON: PULL-DOWN

External PullDown



- Button is "pulled-down" to GND [0V] when not pressed.
- When button is open, GPIO reads 0.
- When button is closed (button pressed), GPIO reads 1.
- ESP32 MCU also has External PullDown resistors enabled via software.

Internal PullDown



Sheet: /		
File: buttons.kicad_sch		
Title: PUSH BUTTONS: PullUp & PullDown		
Size: A4	Date:	Rev:
KiCad E.D.A. 9.0.0		Id: 1/1