

Switches

Networks and Embedded Software

Module 3.4.5 (optional)

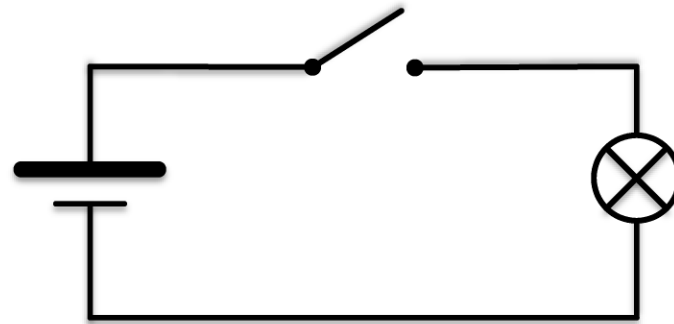
by Wolfgang Neff

Switches (1)

- Electro technical Component

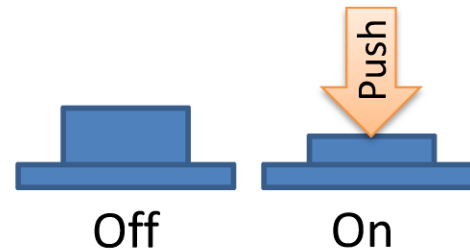
- In general

- Circuit breaker



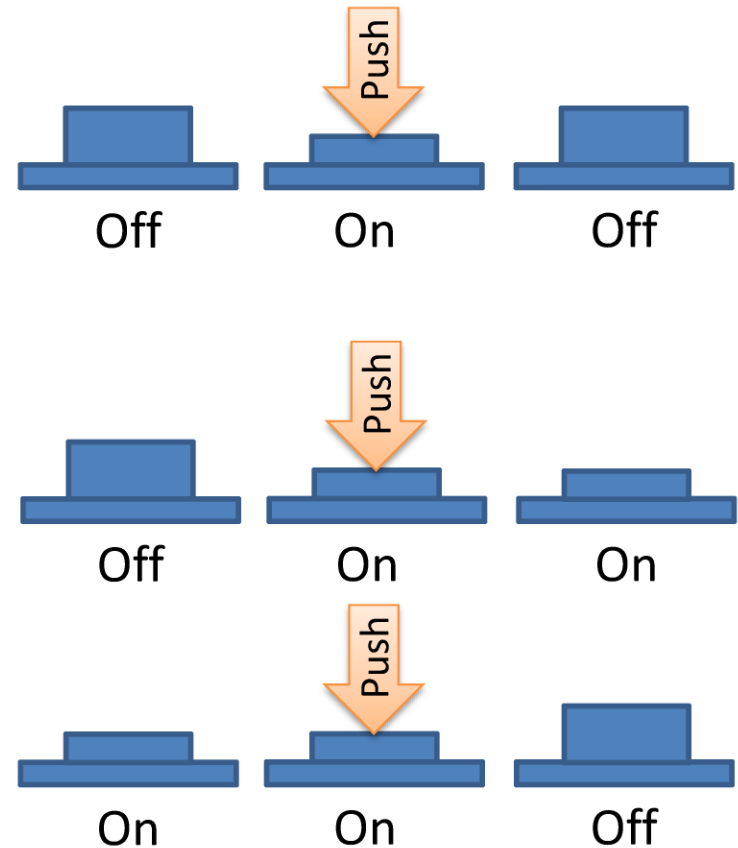
- In particular

- On/Off indicator



Switches (2)

- Push Button
 - On/off when pressed
 - Off/on when not pressed
- Switch
 - Button with locking
 - On/off when pressed
 - Off/on when pressed again

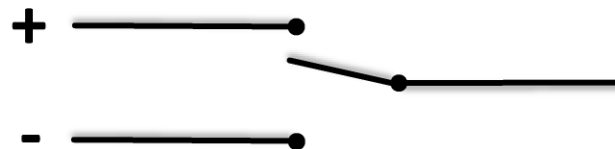


Switches (3)

- Implementations
 - Single pole, single throw (SPST)

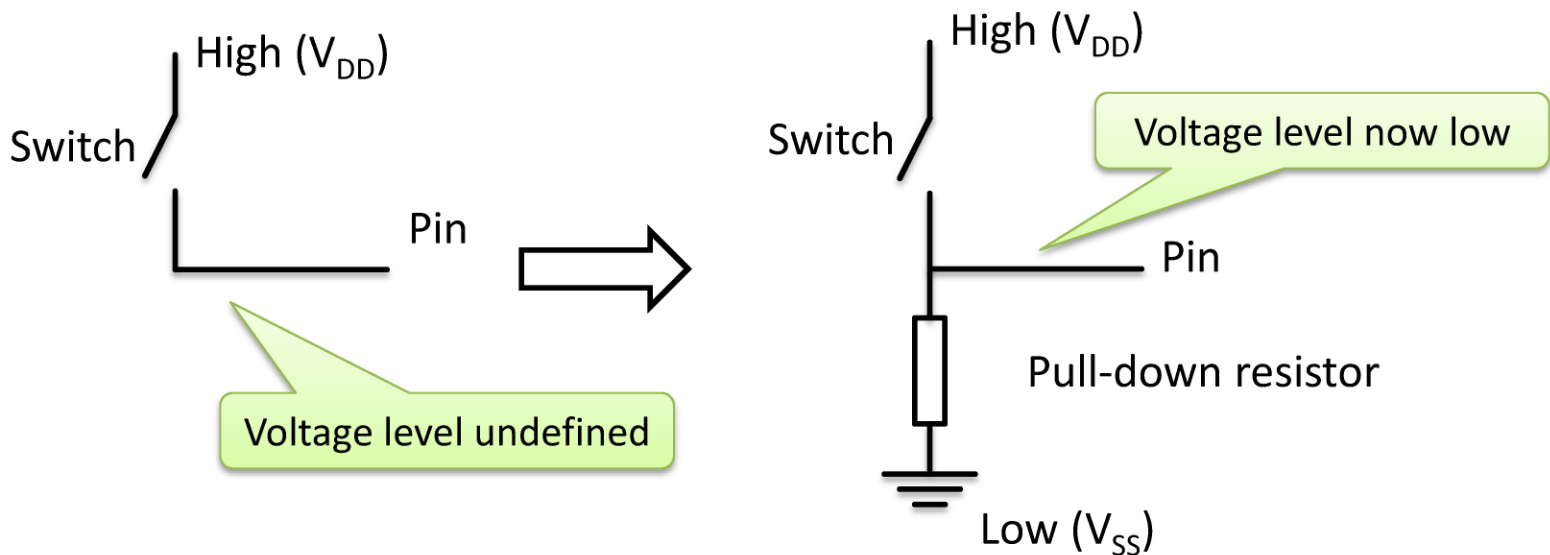


- Single pole, double throw (DPST)



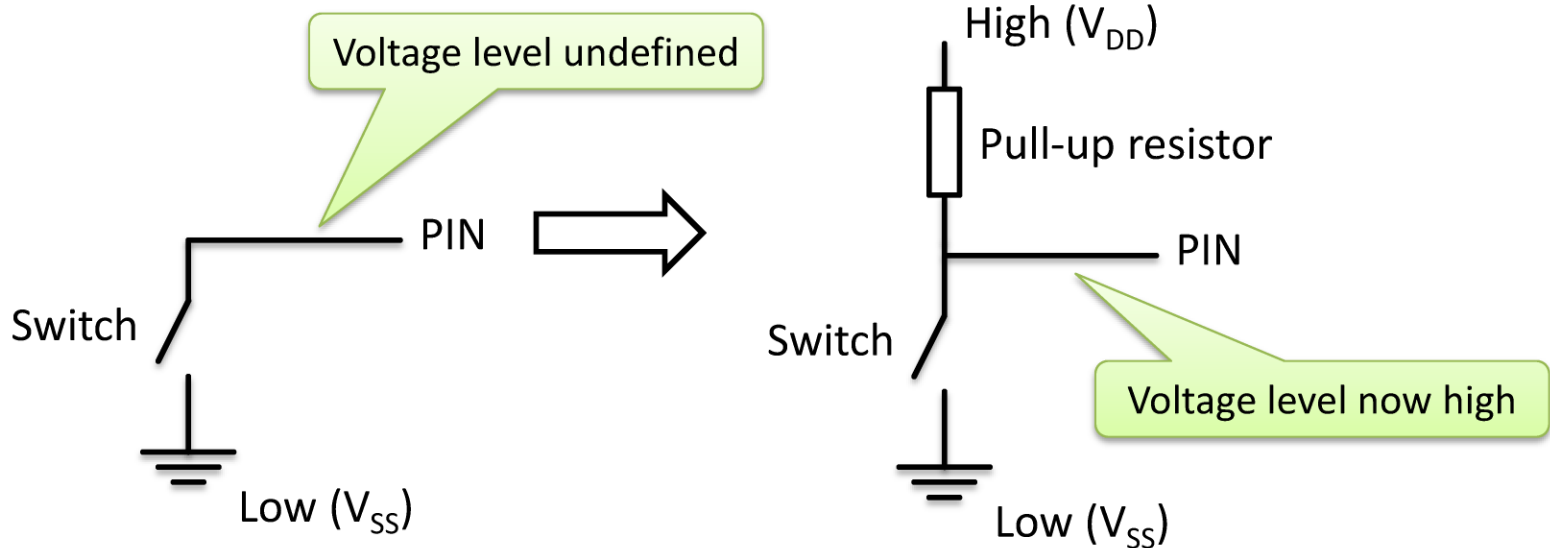
Active High

- Pin is high if button is pressed
- SPST needs a pull-down resistor
 - Prevents an undefined voltage level



Active Low

- Pin is low if button is pressed
- SPST needs a pull-up resistor
 - Prevents an undefined voltage level



Switches (4)

- Voltage Levels of a SPST

