

Keyboards

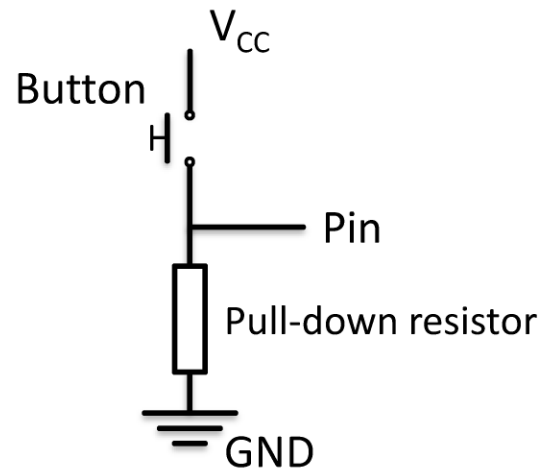
Networks and Embedded Software

Module 4.2.3

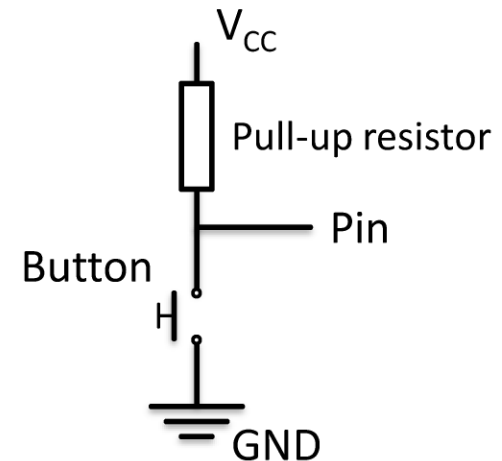
by Wolfgang Neff

Push-buttons (1)

- Active when pressed
- Two modes of operation
 - Active high
 - Active low



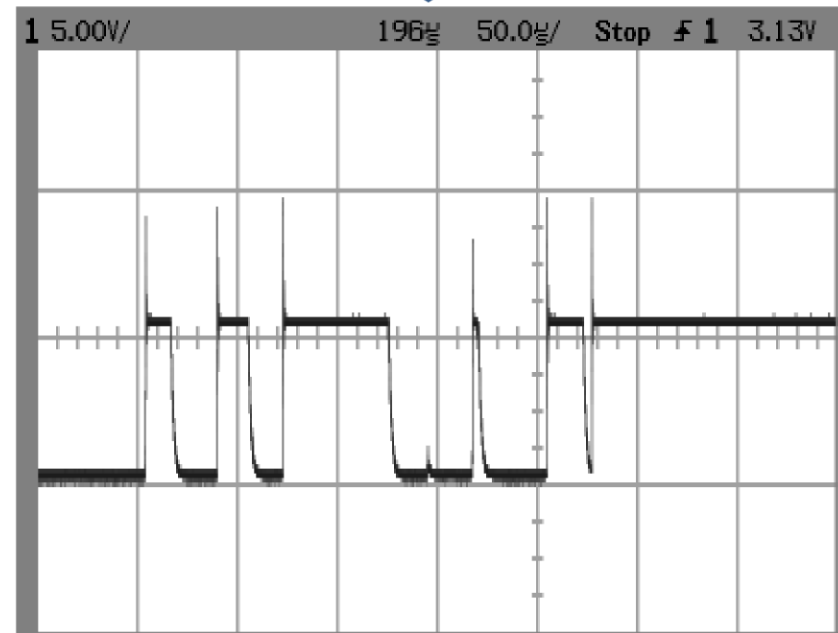
Active high



Active low

Push-buttons (2)

- Contact bounce
 - Mechanical switches bounce
 - Number of keystrokes is hazardous
 - Debouncing
 - By hardware
 - By software



Keypads (1)

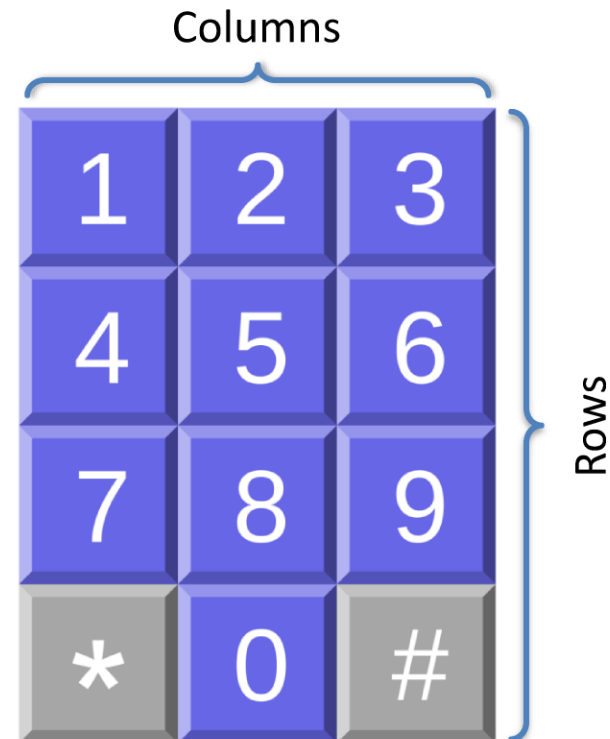
- Buttons arranged in a block

- Arranged in

- Columns
- Rows

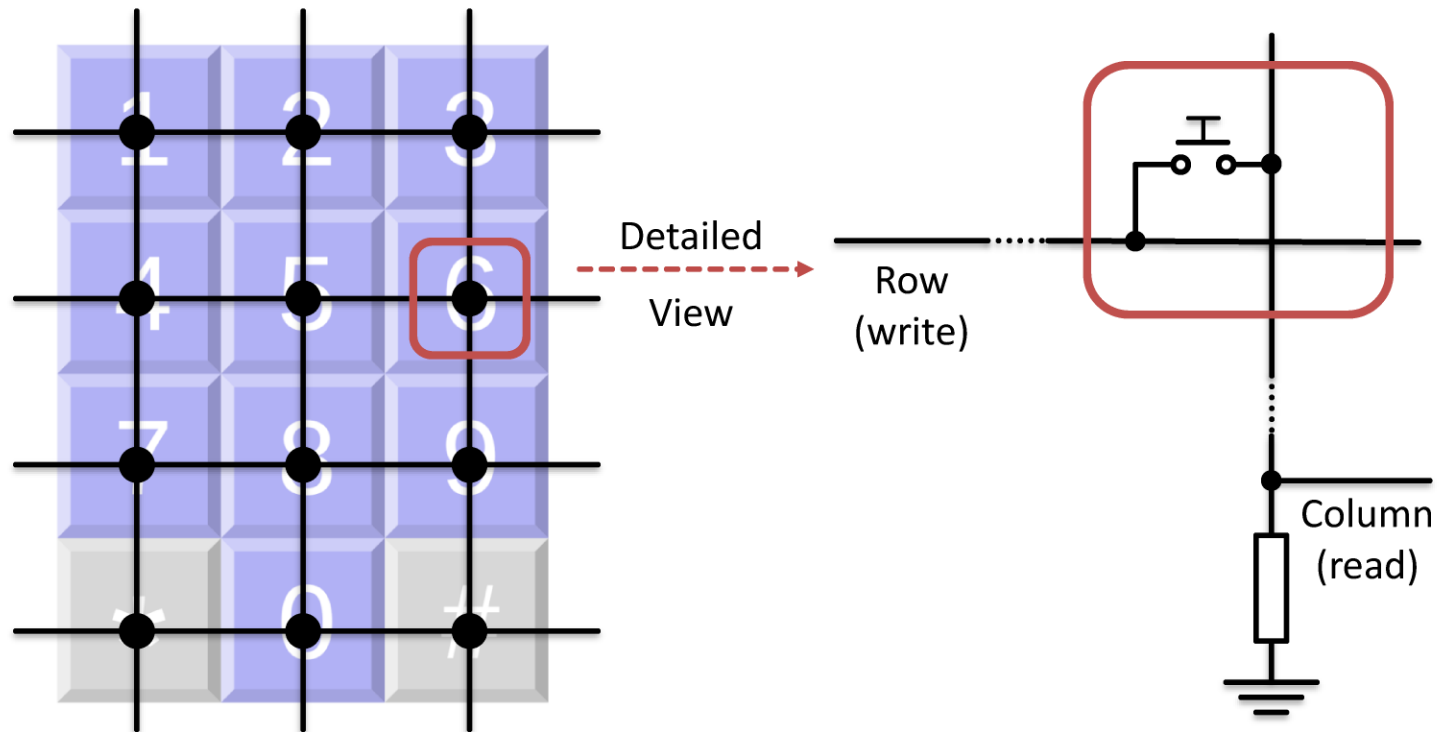
- Example

- Telephone keypad 



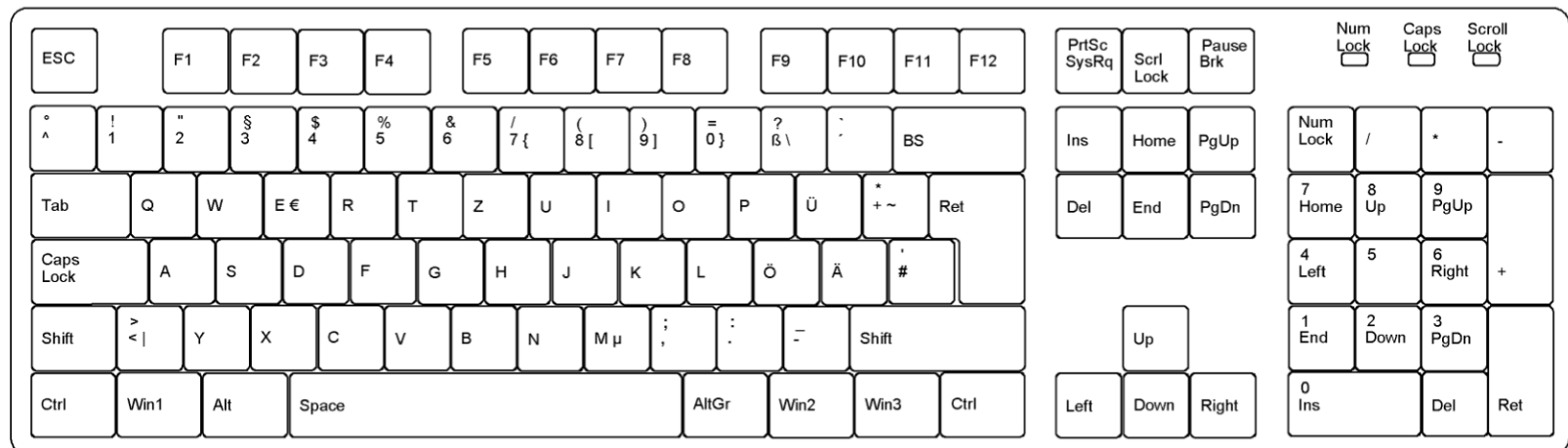
Keypads (2)

- Electrical Setup



Keyboards (1)

- Set of buttons used to enter data
- Example
 - German MF2 Keyboard



Keyboards (2)

- Keyboard Controller

