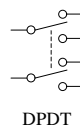


# Switches

## Switch Technologies

- Mechanical
- Bubble
- Conductive Rubber
- Capacitive
- Hall Effect

## Toggle/Slide

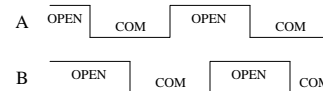


## Switch Types

### Momentary/Pushbutton

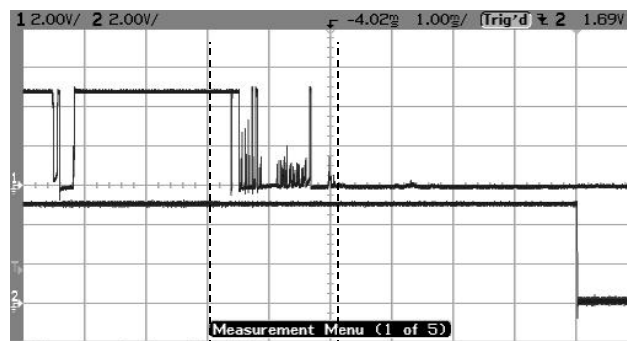


### Rotary Encoder



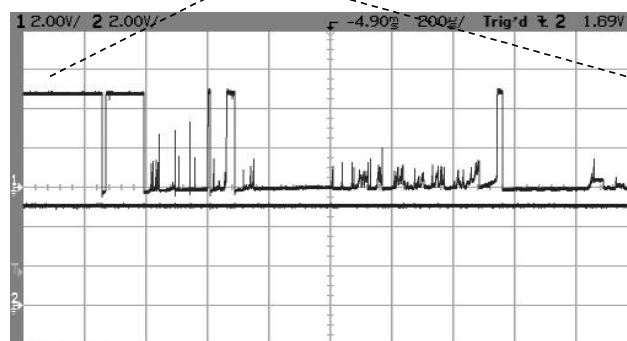
switch output

debounced output

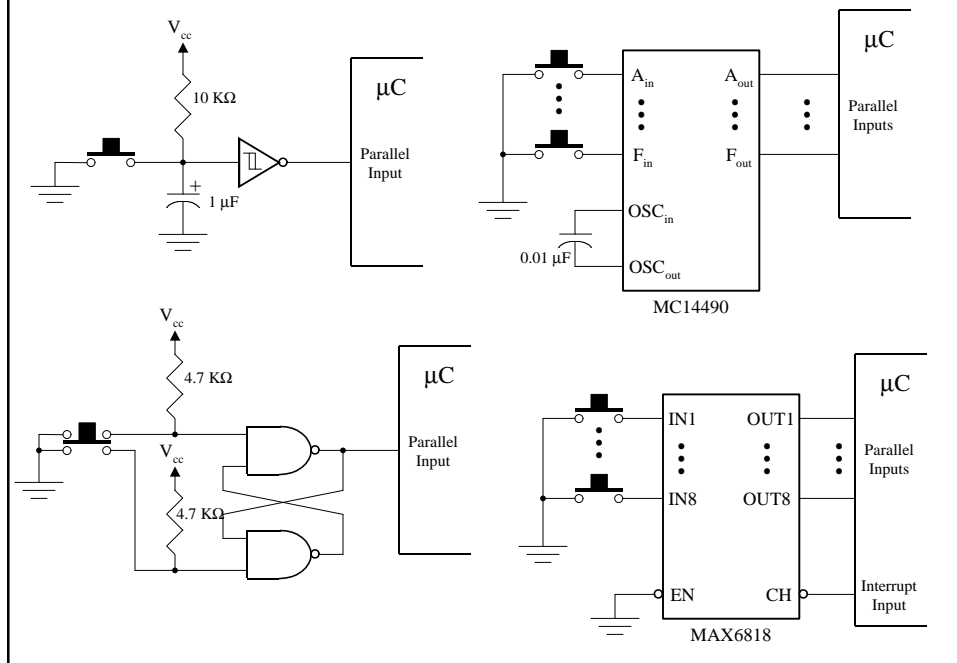


switch output

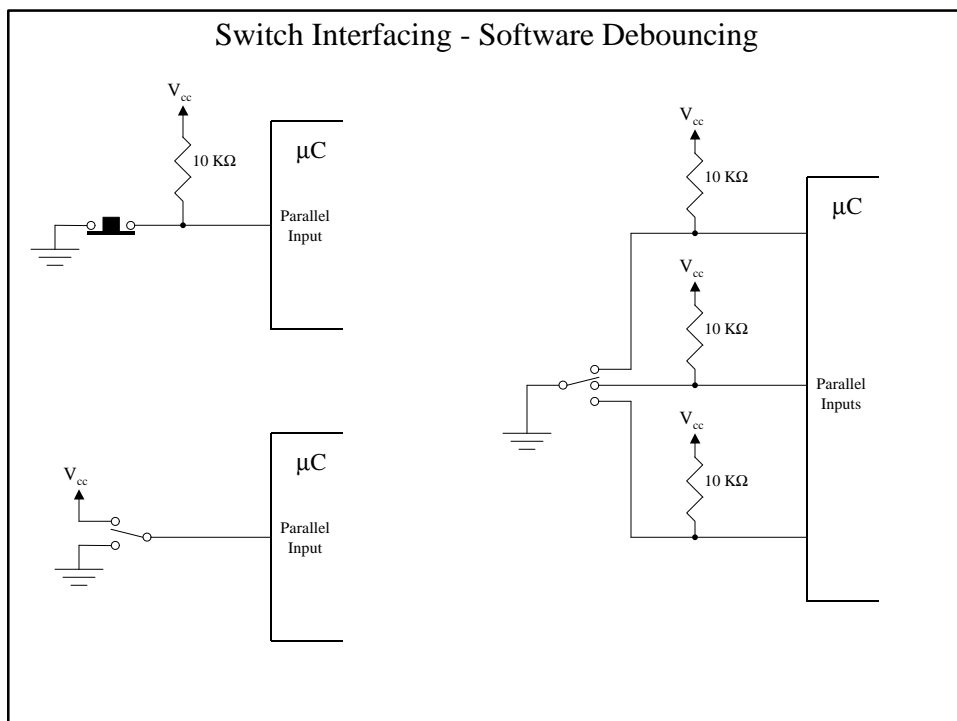
debounced output



### Switch Interfacing - Hardware Debouncing

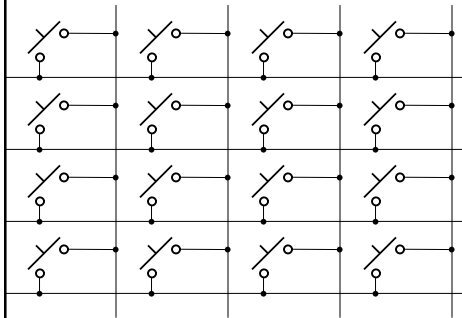


### Switch Interfacing - Software Debouncing

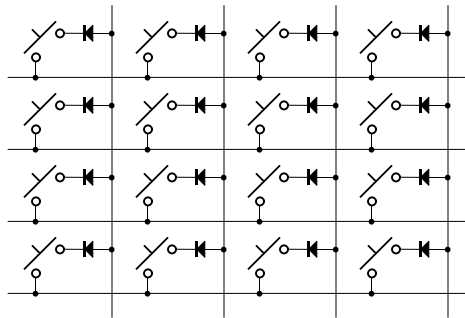


## Keypads

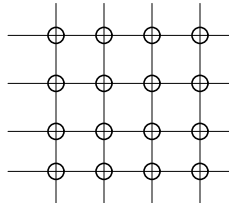
4x4 Keypad



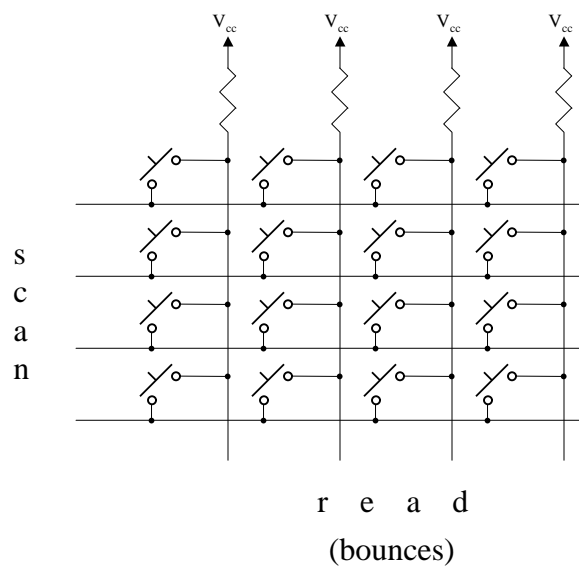
4x4 Keypad with anti-ghosting diodes



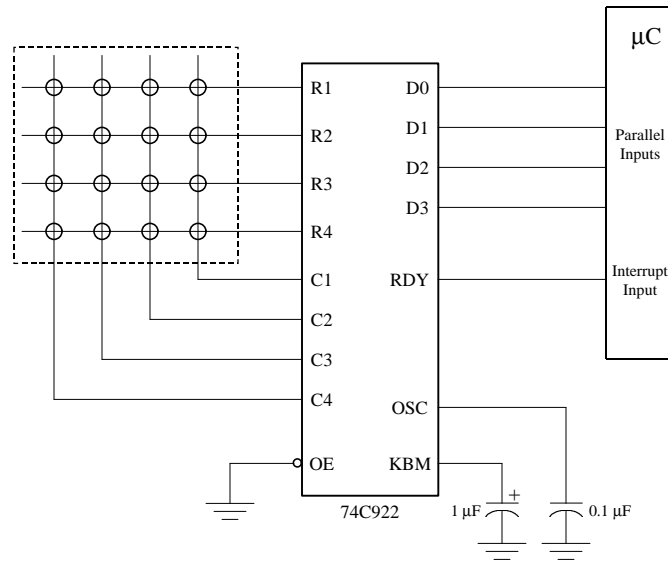
4x4 Keypad Alternative Drawing



4x4 Keypad Circuit



### Keypad Interfacing - Hardware Scanning & Debouncing



### Keypad Interfacing - Software Scanning & Debouncing

