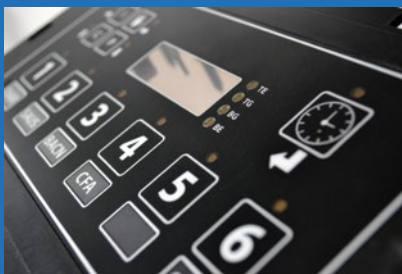
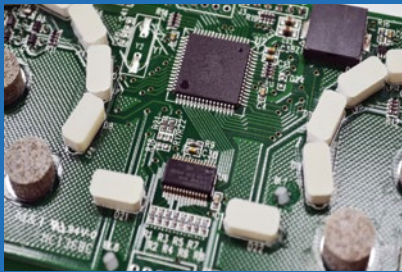


Custom Capacitive Switches



Are you looking for a reliable switch that will save you money on repairs and maintenance? Do you require a product that can successfully perform in even the harshest environments? A capacitive switch from Wilson-Hurd is the solution to your problems. With no moving parts to wear down, our capacitive switches offer excellent durability, and can be used in a variety of applications including automobiles, industrial applications, computers, cell phones, and consumer electronics.

How does a capacitive switch work?

A capacitive switch detects the presence or absence of a conductive object, such as a finger, by measuring changes in capacitance. This means that there are no mechanical components within the switch, eliminating any potential mechanical failure.



Advantages:

- Self-contained system gives flexibility to the design of your product
- Reduced board space requirements
- Lower cost
- Easy integration of multiple functions, including LED drivers, and back-lighting
- Wide selection of input choices: buttons, sliders, switches, touch-pads, touchscreens, and proximity sensors
- Variety of non-conductive overlay materials can be used (plastic, acrylic, and glass)

Custom Capacitive Switches

Features

- Utilizes “Cypress” in-system serial programmable flash memory micro-controllers
- Wide range of micro-controller packages available
- 4MIPS 8bit Harvard architecture
- 512 to 1k RAM
- 8k to 16k flash memory
- Configurable analog/digital GPIO
- Internal oscillator
- Counters, timers, PWM, ADC, Vref
- Supports serial communication 12C, SPI, UART, USB
- 2.4V-5.25V supply range
- 1.2V battery supply possible
- Industrial temperature range -40°C (-40°F) to 85°C (185°F)



Capacitive Switch Overview Chart

Interface Type	Overview	Applications
Buttons	<p>Low-cost, simple solution for integrating up to 46 buttons</p> <p>Flexible technology enables sensing through a wide range of protective overlay materials</p> <p>Calibrate buttons individually with firmware parameters</p>	Wireless handsets, PC peripherals, appliances, LCD monitors, TVs, PC mice, laptops, automotive, toys
Sliders	<p>Useful in applications requiring precise multi-level sensing</p> <ul style="list-style-type: none"> - Volume control - Brightness control - Temperature control <p>Achieve greater resolution than is inherent to IC pin count</p>	Wireless handsets, PC peripherals, appliances, LCD monitors, TVs, laptops, digital cameras, automotive, exercise equipment
Touch-pads	<p>Touch-pads can be integrated into non-traditional touch-pad applications</p> <p>Capacitive sensing offers a cost-reduction to expensive modules and resistive-overlay technologies</p> <p>Automated design makes touch-pad implementation easy</p>	Wireless handsets, laptops, keyboards
Touchscreens	<p>Touchscreens can be integrated into non-traditional touchscreen applications</p> <p>Configurable I/O allows for the support of a wide range of panel sizes</p> <p>Multi-touch capable</p>	Wireless handsets, appliances, hand-held devices, kiosks, PQS terminals
Proximity Sensing	<p>Wake your system before the user's hand reaches the touch surface</p> <p>Proximity sensing can be applied to any application that senses a conductive object, such as fluid-level sensors and pulse-rate monitors</p> <p>Proximity sensing is implemented by adjusting the sensor design and sensitivity of the capacitance measurement</p>	Appliances, keyboards, PC mice, laptops, automotive, lighting sensors, industrial sensors, controls

