

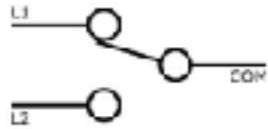
Sensors, Microcontrollers and Actuators

Sensor overview

Actuator overview

Wireless/Wired

Passive sensors (1)



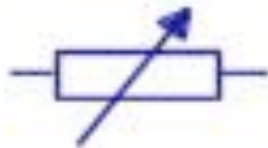
Switch

On/Off



FSR (Force sensing Resistor)

Force



Potentiometer

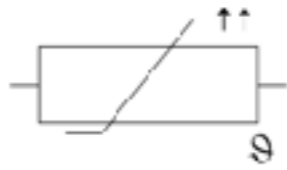
Rotation



Lin. transducer

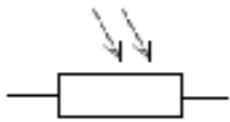
Displacement

Passive sensors (2)



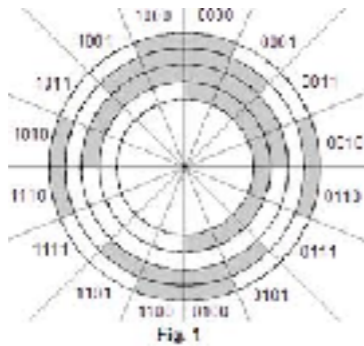
NTC / PTC (Negative /Positive temp coefficient)

Temperature



LDR (Light depended resistor)

Light



Graycode sensor

Rotation/position



IR diode

IR light



Capacitive sensors

level (liquid)

Passive sensors (3)



Lin Pos Sensor

(finger) position



Piezo

Sound/pressure



Piezo

Movement



speaker

Movement



microphone

Sound

Active sensors (1)



Accelerometer (x,y)

x, y movement, rotation



Compass

Northpole



Gyroscope

Rotation, compass



Hall sensor

Magnetic field



Polaroid sensor

Distance

Active sensors (2)



Ultrasonic sensor

Distance



IR motion sensor

Motion



Smoke detector

Smoke



video camera

movement/color/location



IR distance measurement

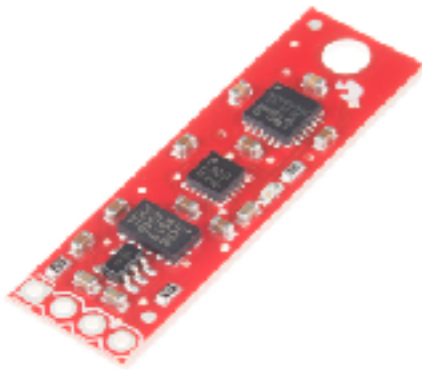
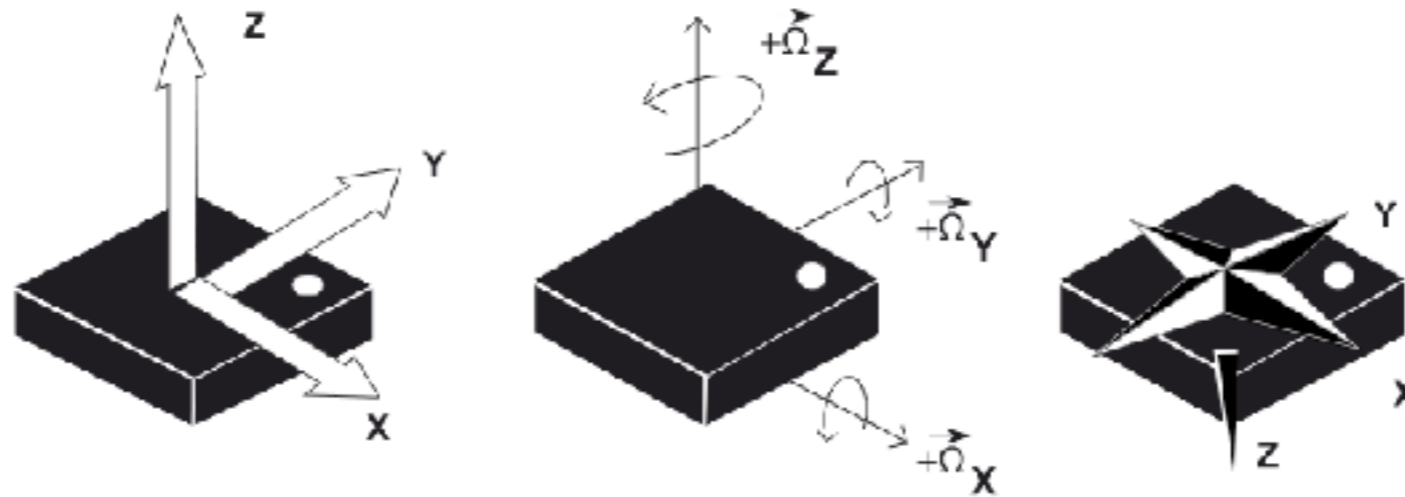
Distance



Kinect

Movement/position

Active sensors (3)



9 degrees of freedom (9dof)

Actuators (1)



DC / AC motor

Movement/rotation



Solenoids

Displacement



Servomotor

Rotation, displacement



Stepper-motor

Rotation, position,
displacement



Relay

Voltage controlled
switch

Actuators (2)



Speaker

Movement / sound



Led's / lights

Light



heavy duty light

light



Piezo

Sound



Electromagnets

Magnetic field

Wireless communication



Xbee (zigbee) /Minibee

Arduino, ...



Wireless LAN

Ipson, Arduino ...



Bluetooth

Arduino/Wii/Mouse ..



lot ESP8266

Arduino/Wii/Mouse ..



FM / AM modules

...



Infra-red (IR)

...

Misc. devices



Wii Controller

bluetooth / Accelerometer



iPhone/iPad/iPod

bluetooth/Wlan Accelerometer
Touch OSC



Microphone

Audio / Data



Mouse

Movement / Switch