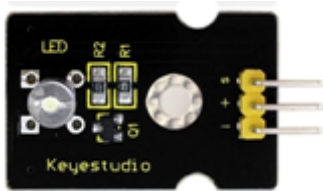


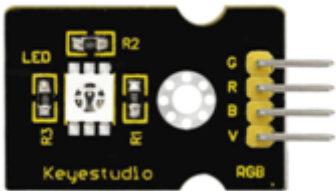








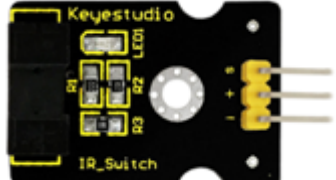


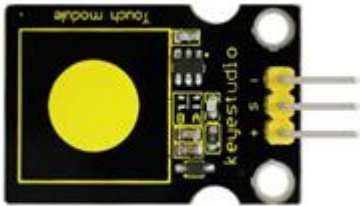






Sensor Cheat Sheet

Product Name	Picture	Sensor Details
Digital White LED Module	 A black PCB module with a white LED, a potentiometer, and three pins. Labels include LED, R2, E, and Keyestudio.	Interface Type: Digital Output <code>write_digital(value)</code>
Red LED Module	 A black PCB module with a red LED, a potentiometer, and three pins. Labels include LED, R2, E, and Keyestudio.	Interface Type: Digital Output <code>write_digital(value)</code>
3W LED Module	 A black PCB module with a large LED, a potentiometer, and three pins. Labels include LED, keyestudio, POWER, and 3W Led module.	Interface Type: Digital Output <code>write_digital(value)</code>
keyestudio RGB LED Module	 A black PCB module with three LEDs (Red, Green, Blue), a potentiometer, and six pins. Labels include LED, R2, E, Keyestudio, and RGB.	Interface Type: Digital Output <code>write_digital(value)</code> Three signal lines, one for each color
keyestudio Analog Temperature Sensor	 A black PCB module with a temperature sensor, a potentiometer, and three pins. Labels include Keyestudio.	Interface Type: Analog Input Working Voltage: 5V <code>read_analog()</code>
keyestudio Photocell Sensor	 A black PCB module with a photocell sensor, a potentiometer, and three pins. Labels include Keyestudio.	Interface Type: Analog Input Working Voltage: 5V <code>read_analog()</code>

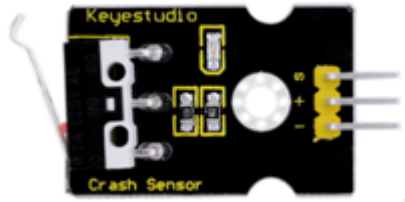


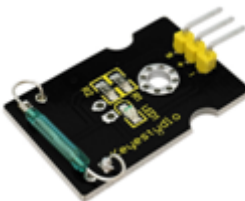

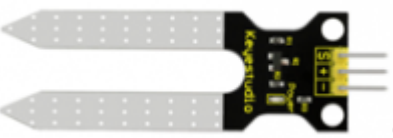

Sensor Cheat Sheet

keyestudio Analog Sound Sensor		Interface Type: Analog Input <code>read_analog()</code>
Analog Rotation Sensor		Interface Type: Analog Input <code>read_analog()</code>
keyestudio Passive Buzzer module		Interface Type: Digital Output <code>write_digital(value)</code>
keyestudio Digital Buzzer Module		Interface Type: Digital Output <code>write_digital(value)</code>
keyestudio Digital Push Button		Interface Type: Digital Input <code>read_digital()</code>
keyestudio Digital Tilt Sensor		Interface Type: Digital Input <code>read_digital()</code>
keyestudio Photo Interrupter Module		Interface Type: Digital Input <code>read_digital()</code>





Sensor Cheat Sheet

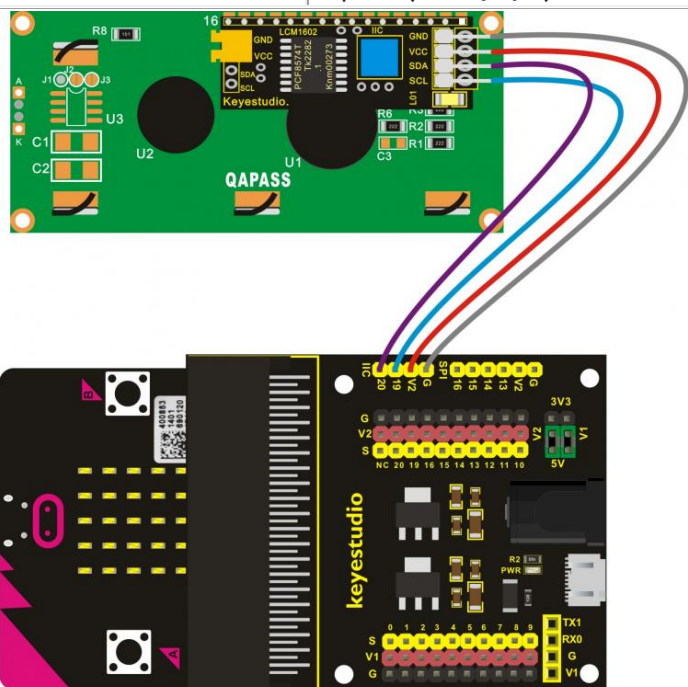
Capacitive Touch Sensor		Interface Type: Digital Input <code>read_digital()</code>
Traffic Light Module		Interface Type: Digital Output <code>write_digital(value)</code> Three signal lines, one for each color
Hall Magnetic Sensor		Interface Type: Digital Input <code>read_digital()</code>
Line Tracking Sensor		Interface Type: Digital Input Working Voltage: 5V <code>read_digital()</code>
Infrared Obstacle Detector Sensor		Interface Type: Digital Input <code>read_digital()</code>
PIR Motion Sensor		Interface Type: Digital Input <code>read_digital()</code>
Flame Sensor		Interface Type: Digital Input <code>read_digital()</code>

Sensor Cheat Sheet



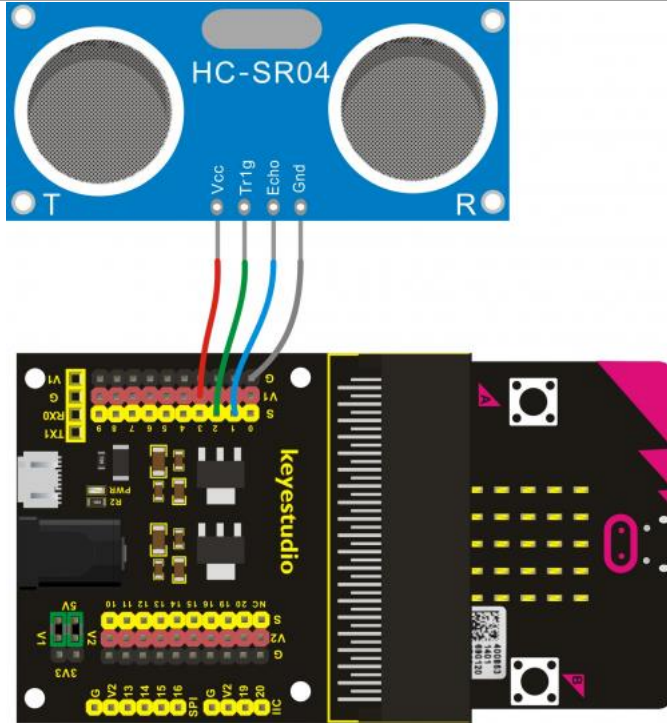
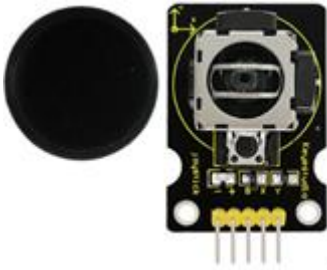
Crash Sensor	 A black PCB with a white circular sensor in the center, labeled 'Crash Sensor' and 'Keyestudio'. It has three pins on the right side.	Interface Type: Digital Input <code>read_digital()</code>
Analog Gas Sensor	 A black PCB with a circular metal mesh sensor on the left, labeled 'Keyestudio'. It has five pins on the right side.	Interface Type: Analog Input Working Voltage: 5V <code>read_analog()</code>
Analog Alcohol Sensor	 A black PCB with a circular metal mesh sensor on the left, labeled 'Keyestudio'. It has five pins on the right side.	Interface Type: Analog Input Working Voltage: 5V <code>read_analog()</code>
Reed Switch Module	 A small black PCB with a reed switch in the center, labeled 'Keyestudio'. It has three pins on the right side.	Interface Type: Digital Input <code>read_digital()</code>
keyestudio Water Sensor	 A black PCB with a series of parallel metal strips on the left, labeled 'Keyestudio'. It has three pins on the right side.	Interface Type: Analog Input Working Voltage: 5V <code>read_analog()</code>
Soil Humidity Sensor	 A black PCB with two long, thin metal probes on the left, labeled 'Keyestudio'. It has three pins on the right side.	Interface Type: Analog Input <code>read_analog()</code>
LM35 Linear Temperature Sensor	 A black PCB with a circular sensor in the center, labeled 'LM35' and 'Keyestudio'. It has three pins on the right side.	Interface Type: Analog Input <code>read_analog()</code>

Sensor Cheat Sheet




Vibration Sensor		Interface Type: Digital Input <code>read_digital()</code>
Thin-film Pressure Sensor		Interface Type: Digital Input <code>read_digital()</code>
GUVA-S12SD 3528 Ultraviolet Sensor		Interface Type: Analog Input <code>read_analog()</code>
1602 I2C Module		Working Voltage: 5V Note – Wire as in diagram below to IIC pins. Then need to copy this lcd library file to your MB (using the “Files” button in Mu Editor) and import at top of your Python file to use i2c screen, e.g.: <pre>from mb_i2c_lcd1602 import * l=LCD1620() l.puts('Hi',1,4)</pre>



Sensor Cheat Sheet

TEMT6000 Ambient Light Sensor		Interface Type: Analog Input Working Voltage: 5V <code>read_analog()</code>
HC-SR04 Ultrasonic Module		Working Voltage: 5V Note: Echo and trigger pin used. See example on Github, with echo wired to pin1 and trigger to pin2: https://github.com/Pratt-Institute/info697/blob/master/ultrasonic_distance_demo.py
		
Joystick Module		Interface: Analog x2, Digital x1 Three signals: X and Y directions are Analog Input Switch is digital

Sensor Cheat Sheet

Micro Servo		<p>Working Voltage: 5V</p> <p>Note – orange is signal, brown is ground, and red is VCC. Then copy this servo library to your MB (using the “Files” button in Mu Editor) and import at top of your Python file to use, e.g.:</p> <pre>from servo_lib import *</pre> <pre>while True: Servo(pin0).write_angle(0) sleep(1000) Servo(pin0).write_angle(90) sleep(1000)</pre>
Single Relay Module		<p>Interface Type:</p> <p>Digital Output</p> <pre>write_digital(value)</pre>
Steam Sensor		<p>Interface Type:</p> <p>Analog Input</p> <pre>read_analog()</pre>

Connection Basics

