

# Additional Info

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# Exposed GPIO

[Screenshot 2023-11-18 at 6.33.00 PM.png](#)

The back of the Apollo MSR-1 has exposed GPIO for a variety of uses.

From left to right:

- SLC (Typo, should be SCL)
  - Used for I2C
- IO 5
  - GPIO 5 of ESP32-C3-Mini
- 5V
  - Used for powering the device, or powering a external sensor
- GND
  - Ground
- 3V3
  - Used to power external sensors. Can not power the MSR-1 from this
- SDA
  - Used for I2C

# mmWave Presence Sensor Comparison

Link to excel file: [mmWave Presence Sensor Excel Spreadsheet](#)

Scroll table to right to see others

Column1	Apollo MSR-1	Apollo MSR-1 CO2	Everythi ng Presence One Kit	Everythi ng Presence Lite Kit	Screek Human Sensor 1U	Screek Human Sensor 2A	Aqara FP1	Aqara FP2	Seed Studio mmWave Kit
Price (USD)	\$      34.99	\$      54.99	\$      78.00	\$      37.00	\$      25.99	\$      29.99	\$      49.99	\$      82.99	\$      26.99
Motion Detectio n									
mmWave	LD2410B	LD2410B	SEN0395	LD2450	LD2410C	LD2450	BGT60TR 13C	IWR6843	Human Static Presence Module Lite
Detectio n Distance (m)	6	6	9	6	6	6	5	6 to 8	5

Detection Zones	3 zones and 9 gates (adjustable and distance based)	3 zones and 9 gates (adjustable and distance based)		x		x	x	x	
Target Tracking				x		x	x	x	
PIR			<a href="#">Panasonic</a>						
Connection Method									
Wi-Fi	ESP32-C3-MINI	ESP32-C3-MINI	ESP32-WROOM-32	ESP32-WROOM-32	ESP32-S2	ESP32-C3		ESP32-WROOM-32U	ESP32-C3
Zwave							x		
Zigbee							x		
Bluetooth	ESP32-C3-MINI	ESP32-C3-MINI	ESP32-WROOM-32	ESP32-WROOM-32	ESP32-S2	ESP32-C3		ESP32-WROOM-32U	ESP32-C3
ESPHome	ESP32-C3-MINI	ESP32-C3-MINI	ESP32-WROOM-32	ESP32-WROOM-32	ESP32-S2	ESP32-C3			ESP32-C3
Case / Stand									
Case Included	x	x	\$  8.00	x	x	x	x	x	x
Cable				x	x	x	x	x	x
Stand	\$4.99 (Optional)	\$4.99 (Optional)	Included with case purchase	x			x	x	
Outlet Mount	\$6.99 (Optional)	\$6.99 (Optional)							
Outlet Mount w/ Wall Plug	\$19.99 (Optional)	\$19.99 (Optional)							





# Adding CO2 To MSR-1

<https://www.youtube.com/embed/gxVCZyOQjJs?si=-b2uhOKwxXw6DswV>

1. Unplug your MSR-1 from power and remove the back

[IMG\\_3784.jpeg](#) type unknown

2. Remove the board from the case and orientate it like the below image. In the bottom right there is a black connector. There is a x in the lower right corner of the connector

[IMG\\_3788.jpeg](#) type unknown

3. Orientate the CO2 module so the white x on the module is also in the lower right and the gold dot is in the upper left as seen below

[IMG\\_3787.jpeg](#) type unknown

4. Align the connector on the back of the CO2 module with the connector on the MSR-1. Once aligned, push down so the CO2 module fully seats itself

[IMG\\_3789.jpeg](#) type unknown

5. Put your MSR-1 back in the case and slide the back cover on. Please refer to our [CO2 calibration guide](#) to calibrate the CO2 module.

# Reducing LD2410 Log Entries In Home Assistant

1. Open your Home Assistant config.yaml
2. Add in this code but use your MSR-1's name

```
logbook:  
  exclude:  
    entities:  
      - binary_sensor.hallway_motion_home_security_motion_detection
```