

PocketLab Specifications

PocketLab Voyager

App Requirements

iOS

- iPhone 4s and newer
- iPad all models except iPad2 and iPad1
- iPod Touch 5th gen and newer

Android 5.0 and newer

- Most phones and tablets made since 2013 with Bluetooth 4.0
- Wireless connection support required
- Tested devices: Samsung Galaxy S4, Note 2, Galaxy S7, Nexus 7 Tablet

Windows 10

Coming Soon

Mac OS

- Macbook, Macbook Pro, Macbook Air with OSX 10.11 or later

Chromebook

- Most Chromebooks made since 2013 with Bluetooth 4.0

Third Party Support

Scratch

- Uses ScratchX extension
- Supports Windows 10 and Mac OS
- Chrome Browser required

Google Science Journal

- Supports 3rd Party interface with Google Science Journal

Developer API

- Open Bluetooth 4.0 protocol to configure and receive sensor data (Coming Soon)

PocketLab Voyager Specifications

Wireless Connection: Bluetooth 4.0

Wireless Range: 75 m line-of-sight (250 ft)

Memory: 30,000 data readings

Durability: 2 m (6 ft) drop protection

Dimensions: 3.8 x 3.8 x 1.5 cm (1.5 x 1.5 x 0.6 in)

Weight: 17 g (0.6 oz)

Battery: Rechargeable via micro USB

Battery Life, Voyager:

- 8 hrs (wireless, full data rate)
- 12 hrs (low power, logging mode)

Sensor Specifications

Accelerometer

- Range: $\pm 16g$
- Resolution: 0.008 g @ 94 Hz
- Data Rate:
 - 50 samples/sec (real-time)
 - 200 samples/sec (burst mode)

Barometric Pressure

- Range: 30 - 180 kPa
- Pressure Resolution: 1.3 Pa
- Absolute Accuracy: 0.1 kPa

Gyroscope

- Range: ± 2000 deg/sec
- Resolution: 0.1 deg/sec @ 92 Hz
- Data Rate:
 - 50 samples/sec (real-time)
 - 200 samples/sec (burst mode)

Humidity

- Range: 0-100 %RH
- Resolution: 0.02 %RH
- Absolute Accuracy: 3 %RH

Magnetometer

- Range: ± 4800 uT
- Resolution: 0.15 uT
- Data Rate: 50 samples/sec

Light

- Range: 0.01 - 64,000 Lux
- Spectrum: 400 - 1000 nm (Visible light)
- Data Rate: 30 samples/sec

Altitude

- Range: -5,300 - 9,500 m (-17,400 - 31,000 ft)
- Resolution: 11 cm (4 in)
- Absolute Accuracy: 10 m (33 ft)
- Data Rate: 50 samples/sec

Ambient Temperature

- Range: -40 - 85 C (-40 - 185 F)
- Resolution: 0.01 C (0.02 F)
- Absolute Accuracy: 0.5 C (0.9 F)

IR Range

- Range: 0.1 - 2.2 m (indoors) (0.3 - 7.2 ft)
- Resolution: 1 cm (0.4 in)
- Absolute Accuracy: 5% of reading
- Data Rate: 33 samples/sec
- Field of View: 25 degrees

Temperature Probe

- Range: -40 - 105 C (-40 - 221 F)
- Resolution 0.2 C (0.4 F)
- Absolute Accuracy 0.5 C (0.9 F)