

## SparkFun Spectral Sensor Breakout - AS7262 Visible (Qwiic)

SEN-14347 RoHS Open Source Hardware



The SparkFun AS7262 Visible Spectral Sensor Breakout brings spectroscopy to the palm of your hand, making it easier than ever to measure and characterize how different materials absorb and reflect different wavelengths of light. The AS7262 Breakout is unique in its ability to communicate by both an I<sup>2</sup>C interface and serial interface using AT commands. Hookup is easy, thanks to the Qwiic connectors attached to the board — simply plug one end of the Qwiic cable into the breakout and the other into one of the Qwiic Shields, then stack the board on a development board. You'll be ready to upload a sketch to start taking spectroscopy measurements in no time.

The AS7262 spectrometer detects wavelengths in the visible range at 450, 500, 550, 570, 600 and 650nm of light each with 40nm of full-width half-max detection. The board also has multiple ways for you to illuminate objects that you will try to measure for a more accurate spectroscopy reading. There is an onboard LED that has been picked out specifically for this task, as well as two pins to solder your own LED into.

The SparkFun Qwiic Connect System is an ecosystem of I<sup>2</sup>C sensors, actuators, shields and cables that make prototyping faster and less prone to error. All Qwiic-enabled boards use a common 1mm pitch, 4-pin JST connector. This reduces the amount of required PCB space, and polarized connections mean you can't hook it up wrong.

## FEATURES

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- 6 visible channels: 450nm, 500nm, 550nm, 570nm, 600nm and 650nm, each with 40nm FWHM
- Visible filter set realized by silicon interference filters
- 16-bit ADC with digital access
- Programmable LED drivers
- 2.7V to 3.6V with I<sup>2</sup>C interface
- 2x Qwiic connectors





Note: **Notice.** This product requires other products in order to function properly. See essential products.

Essentials
Qwiic Cable - 100mm
PRT-14427
SparkFun Qwiic Shield for Arduino
DEV-14352
SparkFun RedBoard - Programmed with Arduino
DEV-13975