Introduction

The main purpose of the Industrial I/O subsystem (IIO) is to provide support for devices that in some sense perform either analog-to-digital conversion (ADC) or digital-to-analog conversion (DAC) or both. The aim is to fill the gap between the somewhat similar hwmon and :doc:`input <../input>` subsystems. Hwmon is directed at low sample rate sensors used to monitor and control the system itself, like fan speed control or temperature measurement. :doc:`Input <../input>` is, as its name suggests, focused on human interaction input devices (keyboard, mouse, touchscreen). In some cases there is considerable overlap between these and IIO.

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Devices that fall into this category include:

- analog to digital converters (ADCs)
- accelerometers
- capacitance to digital converters (CDCs)
- digital to analog converters (DACs)
- gyroscopes
- inertial measurement units (IMUs)
- color and light sensors
- magnetometers
- pressure sensors
- proximity sensors
- temperature sensors

Usually these sensors are connected via :doc:`SPI <../spi>` or :doc:`I2C <../i2c>`. A common use case of the sensors devices is to have combined functionality (e.g. light plus proximity sensor).

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