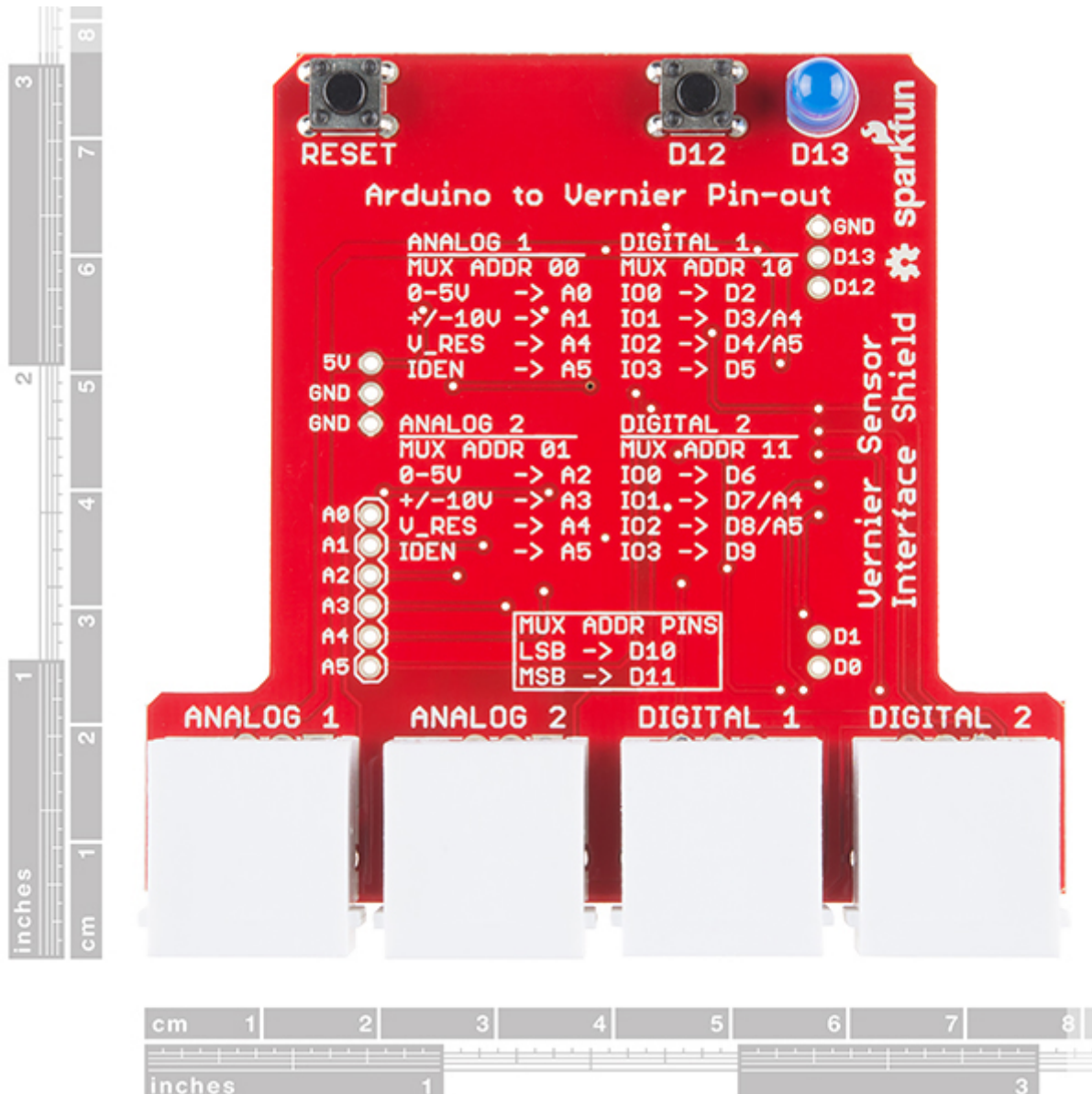


To which Arduino pins does the Vernier Interface Shield connect

MAY 12, 2017

The [Vernier Arduino® Interface Shield](#) (BT-ARD), has four sensor ports; two analog and two digital the following Arduino pins:



Analog 1

Sensor pin 1 (+/-10 V output line) – Arduino pin A1

Sensor pin 2 (Ground) – Arduino ground

Sensor pin 3 (Vres/resistance reference) – Arduino pin A4
(also for I2C autoID)

Sensor pin 4 (AutoID) – Arduino pin A5 (also for I2C autoID)

Sensor pin 5 (+5 Volt power) – Arduino 5V

Sensor pin 6 (0-5 V output line) – Arduino pin A0

Digital 2

Sensor pin 1 (Input/Output Line 0) – Arduino pin D6

Sensor pin 2 (Input/Output Line 1) – Arduino pin D7/A4

Sensor pin 3 (Input/Output Line 2) – Arduino pin D8/A5

Sensor pin 4 (+5 Volt power) – Arduino 5V

Sensor pin 5 (Ground) – Arduino ground

Sensor pin 6 (Input/Output Line 3) – Arduino pin D9

Notes:

*Details for Vernier sensor pinouts can be found here: <https://www.vernier.com/support/sensor-pinouts>

*Most analog sensors use the 0-5 V output line.

*Digital sensors vary in how they use the four IO lines.

*Vernier interfaces use sensor pin 3 and 4 to auto-ID connected sensors. These pins are connected to the I2C bus. The code for auto-ID'ing sensors can be found [here](#). For many modern Vernier sensors, lines A4 and A5 are used for I2C communications. On some Arduino types, notably Arduino Mega, these pins cannot be used for I2C communications. Arduino Mega uses different pins for I2 communications.

*Pins A4 and A5 are shared across all four connectors. In order to properly access the BTA and BT modules, the analog multiplexer circuit; MUX Control addresses are D10 and D11.

*An LED indicator is tied to D13 and a general purpose button is connected to D12.

For more information about how Vernier sensors work with Arduino, see [our sample code and project](#)