



NEUROMAKER

NeuroMaker Hand 2.0

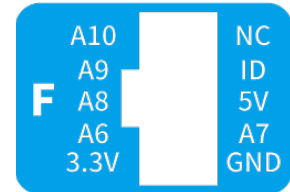
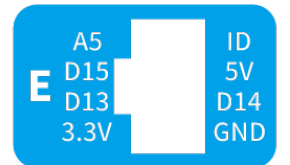
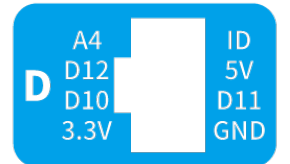
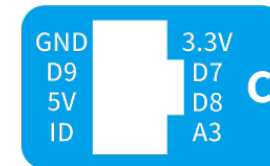
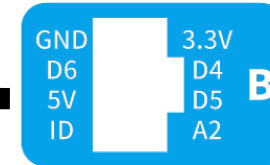
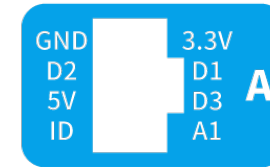
3rd-Party Sensor Integration



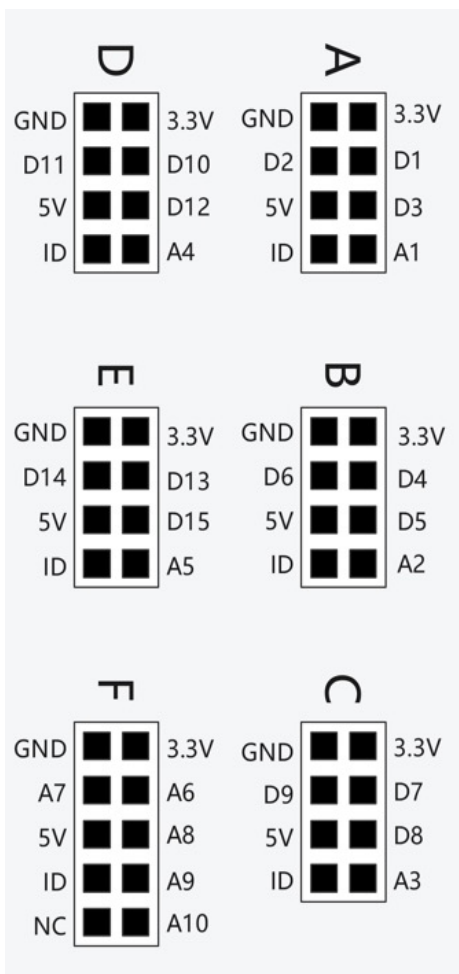
3rd Party Sensors are Connected Using the Same Ports as BioSensors.

Use **jumper cables** to connect to the individual pins inside port A to F.

Multiple sensors can be connected simultaneously.



Simply Treat the NeuroMaker Core like a Regular Microcontroller.



Just like any other microcontrollers,

- 3.3V pins power up external modules.
- Multiple GND pins are available.
- The “D” pins are Digital I/O.
- The “A” pins are analog inputs. (Analog output is not available.)
- An additional servo motor connector S6 can be found on top of the NeuroMaker Core.
- “ID” pins are not used in this case and should not be connected.
- You can use pins from different ports for the same module. In other words, Port numbers (A, B, C, etc) does not matter.

Example- Building an Alarm System

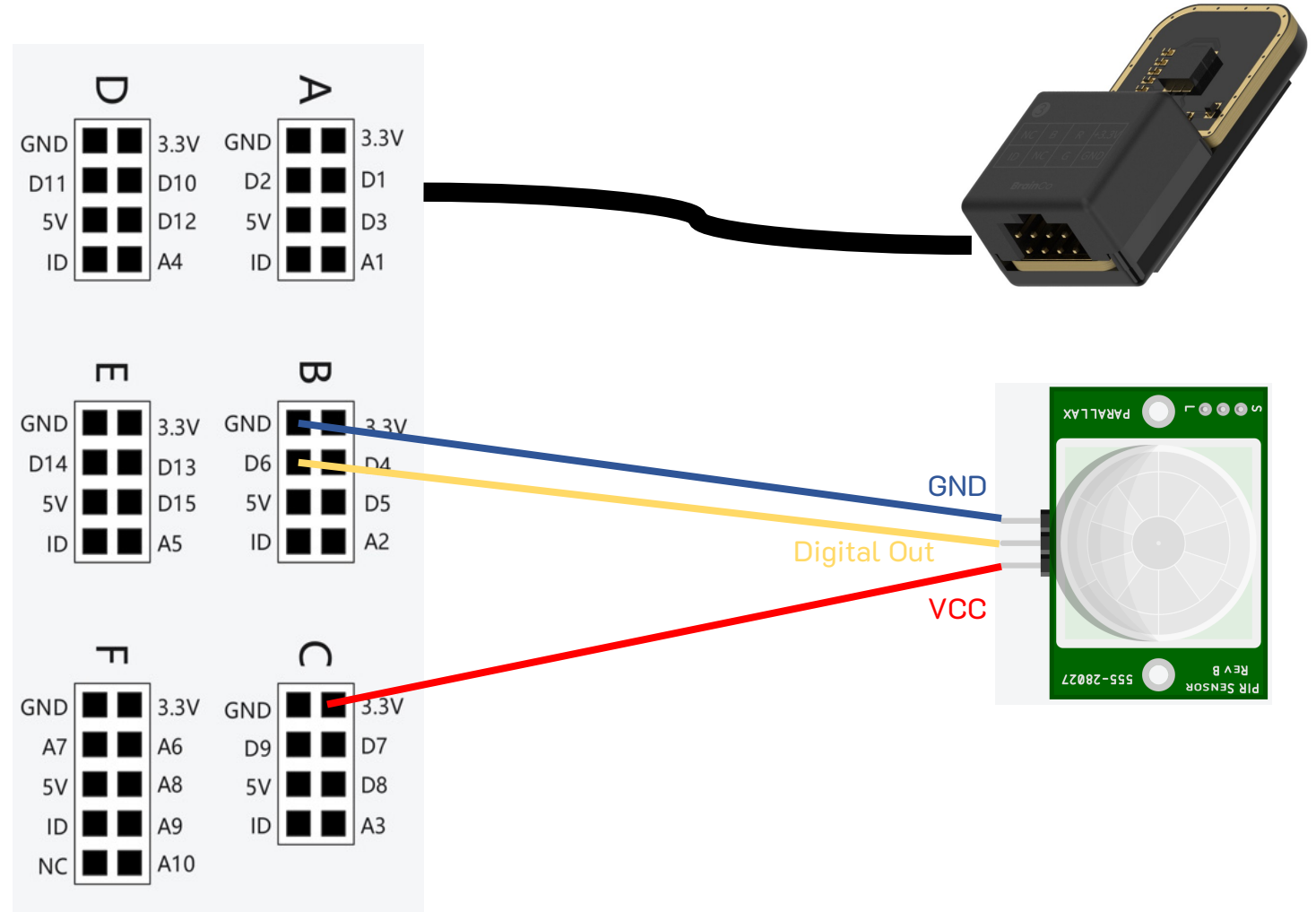
Our goal is to build and program an alarm system, so that when the PIR motion sensor detects movement, the LED will light up in red.

3rd party device used: PIR motion sensor

The VCC pin on the PIR sensor is powered up by a 3.3V pin from the NeuroMaker Core.

The signal output pin on the PIR sensor is connected to D6.

An LED module from the BioSensor Kit is connected to Port A.



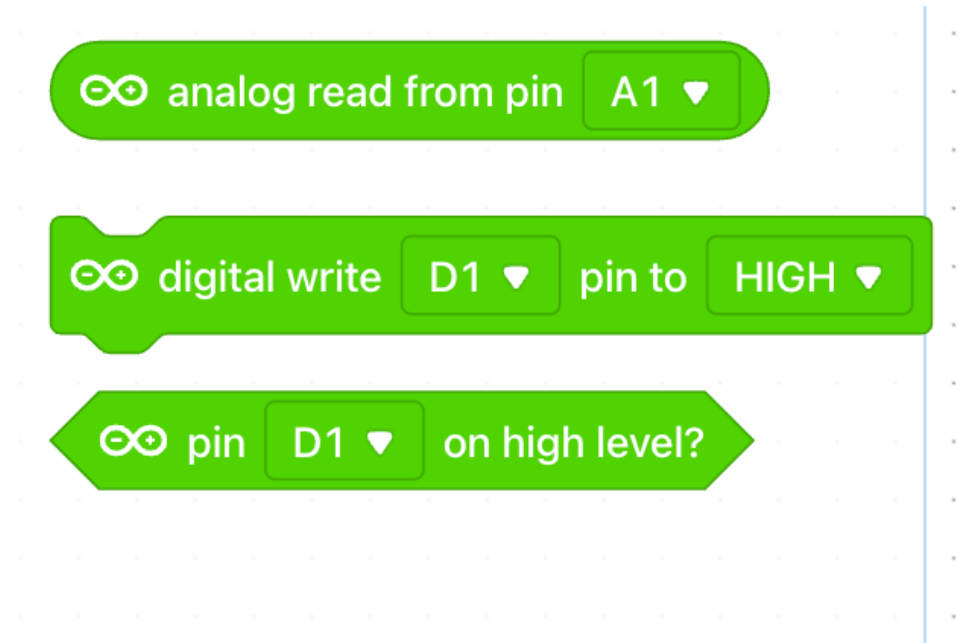
Coding Extensions for Individual Pins

After the NeuroMaker coding extension is added in mBlock, find the “Pin” category. The blocks shown on the right are used to program individual pins.

If you have not set up the mBlock extension, proceed to

www.neuromakerstem.com/documents

and follow the instruction “How to Program”.



Sample mBlock Program for the Alarm System

Since the PIR sensor is connected to pin D6, we read its digital HIGH or LOW to determine whether an object is detected.

The LED module connected to Port A will then respond to the input signal.

