Ideaboard Firmware Installation and Testing

See video.

Initial Board Connections:

USB
Qwiic connector to Sumbot Board (accelerometer via i2c)
2 x small DC motors
Jumper in 3.3V position
No power to Vin
Sensor 1 → IO33
Sensor 2 → IO32
Sensor 3 → IO35
Sensor 4 → IO34
GND (Sumobot) → GND (Ideaboard)
3V3 (Sumobot) → +3.3v (Ideaboard)

Flashing or Web App:

ESPTOOL (or https://crcibernetica.github.io/ideaboard-terminal/)
Offset 0x0
Baud 921600

Testing (Jumper in 3.3V position):

The test code will run as soon as the flashing is completed and reset is pressed.

1. White LED for 1 second. If the LED is not white then the WS2812 is faulty.
2. Rainbow cycles for a few seconds.
3. Motors turn on for 2 seconds. Then move in opposite directions.
4. LED turns green if the code connects successfully to the accelerometer/gyroscope via i2c.
5. The S1-S4 are the sensor values. Use black and white paper to test each one.

Testing (Jumper in Vin position):

Move jumper to Vin position.
Connect 5V to Vin
Press reset button

The tests should work the same as above.