Quick Start Guide

1. Connecting the sensor to an Arduino

- Solder wiring of your choice (or connectors such as header pins) to the Vin, GND, and ENV pins on the sensor.
- Connect the GND wire to one of the Arduino’s GND pins
- Connect the Vin pin to the Arduino’s 5V or 3V pin
- Connect the ENV wire to one of the Arduino’s analog input pins (e.g. A0)

Quick Tip
Using a multimeter, verify that your solder joints are making a good connection.

Troubleshooting Tips
- The Vin LED should remain on constantly as long as the sensor is powered.
- The ENV LED might immediately turn on when power is turned on but it should turn off after a second or two; afterwards, it should only turn on when the sensor detects muscle flexion.
- The ENV LED might sporadically turn on and off or simply remain on if the sensor (or external cables) is not connected to electrodes on the skin. This is normal behavior.
- The ENV LED lighting up seemingly at random while connected to electrodes on the skin usually indicates poor contact between the electrodes and the skin. Try cleaning the area and applying new electrodes.
- Recommended that you do not adjust the sensor’s gain until you get a consistent, quality signal from the sensor.

2. Placing the sensor

Determine which muscle group you want to target:
- BICEP
- FOREARM
- CALF

Quick Tip
Start with the bicep until you get the sensor working properly.

Quick Tip
Never reuse single-use electrodes (e.g. the ones we sell)

NOTE
Muscle groups not to scale.

Quick Tip
Placing the sensor
Snap electrodes to the sensor’s three snap connectors marked MID, END, and REF.

NOTE
We do not recommend snapping the MyoWare to the electrodes after they’ve been placed on the skin, doing so can cause bruising!

NOTE
Soap can leave residue and should be avoided.

Thoroughly clean the intended area with rubbing alcohol to remove dirt and oil and allow to dry.

NOTE
Body hair can cause a poor connection. Use areas with sparse hair or remove hair from the area.

Quick Tip
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NOTE
Always ensure that the position of the REF electrode is adjacent to the muscle body

Place the MID electrode in the middle of the muscle body
Place the REF electrode adjacent to the muscle body
Place the END electrode lined up in the direction of the muscle length

Quick Tip
Placement is extremely important. If this isn’t clear, please reference the Advanced Guide for more information.

NOTE
The depiction above is not to scale.

3. Connecting the sensor

Connect the Arduino to a computer using a USB cable. If using a laptop, the laptop’s power cord must be disconnected from the wall unless a USB isolator is used.

If using a desktop, a USB isolator is ALWAYS required.

Electrical Shock Warning
A USB isolator ensures separation between the body and the power grid to safeguard against any chance of electrical shock. The USB isolator also reduces noise in the output signal caused by some countries’ power grid.

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Quick Tip
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