# HEG TRAINING QUICK START GUIDE

# **Step 1**: Power up your HEG device via the microUSB port or battery port.

\*Important\* Some power sources can add noise and ruin the signal fidelity. For instance, powering my laptop from a specific wall plug in my room and the HEG from my laptop creates a noisy signal, then it disappears when I unplug it - due to interference from the power port in the wall.

# Step 2:

On your laptop or phone:

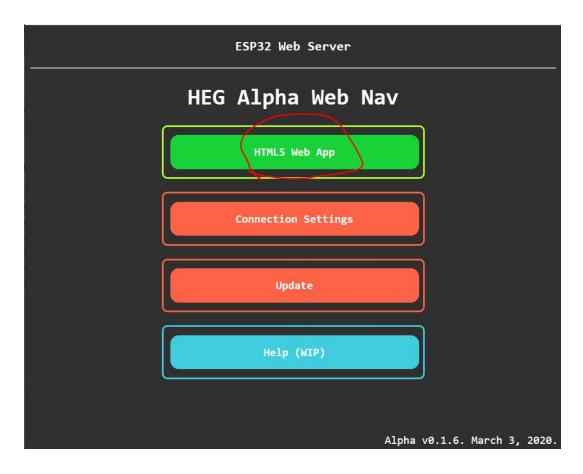
- Scan for WiFi signals until you find "My\_HEG" listed.
- Connect with password "12345678"

### Step 3:

From your preferred internet browser (works best on Chrome or Firefox):

- In the address bar enter <a href="http://192.168.4.1">http://192.168.4.1</a> (or click this link if viewing digitally).
  - If that doesn't work or if on an Apple product, try <a href="http://esp32.local">http://esp32.local</a>.

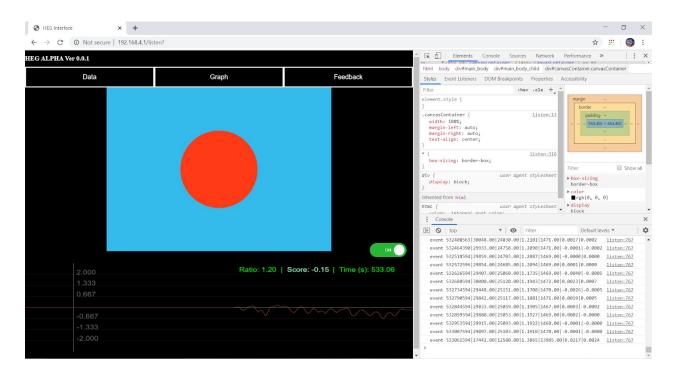
Step 4: From the main interface page that shows up, select "HTML5 Web App"



# Step 5: Click the Red slider that says "OFF" to turn the sensor ON.

This should cause the sensor LEDs to flash and for a data stream to come through. You can right click on the page anywhere and click "Inspect" in the menu that pops up to see the data stream.

For a quick exercise, try taking slow, deep breaths for several minutes, and see how that correlates with the information on screen.



# Step 6 (optional):

- Click on the Data menu after accumulating some data on the graph.
- Click "Save Data" to save a csv file with your data.

You can also replay CSVs via the Replay CSV button, it will ask you for a file formatted like the ones it saves. If it doesn't replay on the first try of the button, try again.

#### Other Notes:

- A highly fluctuating score indicates one or several things:
  - The headband is not fully secure against your forehead to block out external light or side light bleeding in from the LEDs: Try to smooth out or reseat the headband on your head so it's completely flush against your forehead like a piece of tape.
  - The power supply or USB wire is corrupting the signal. Try different power sources and different wires. Proximity to WiFi routers and other wireless power sources may also impact noise levels.
  - There is moisture on the OPT101 connections: Make sure your tape is secure, you can also add screen protector or clear plastic to improve the waterproofing.
  - Your forehead is contacting a connection: Again, check that the tape covers everything.
- The Help page has WIP documentation on various signal issues by the numbers it reads out.