

App Guide Angle Feedback Test

SageMotion
Wearable Biofeedback System



Table of Contents

Components	<i>(page 1)</i>
Wirelessly Connect to Computer or Cellphone	<i>(page 2)</i>
Angle Feedback Test App	<i>(page 3)</i>

Components



Hub



Nodes (8x)



Battery



Node Straps: *Medium (8x), Short (4x), Long (2x)*



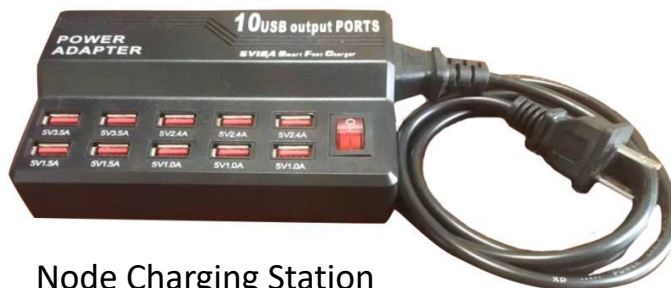
Cable A (10x)

-Connect Hub to Battery
-Charge Nodes & Battery



Cable B (*optional use*)

-Connect Hub to Computer



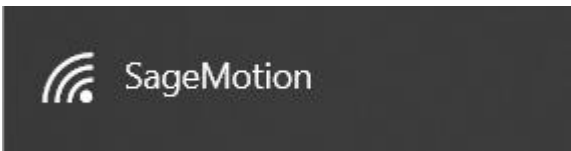
Node Charging Station

Wirelessly Connect to Computer or Cellphone

1) Connect Cable A to Battery and to Hub



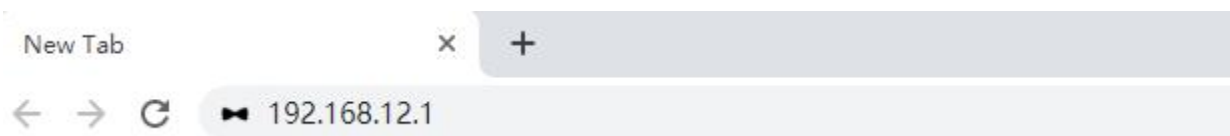
2) On Computer/Cellphone, Connect to Wi-Fi: “SageMotion”



Note 1: Need to wait for up to 1 minute for “SageMotion” to appear in Wi-Fi list. If it doesn’t appear, try turning the Wi-Fi off and then on again on the computer/cellphone.

Note 2: Hub is connected after clicking “Connect” even if in Windows it shows “Connecting” or “No internet, open”.

3) On Computer/Cellphone, in Chrome Address Bar, Go To <http://192.168.12.1>



[Note] If Computer Doesn’t Have Wi-Fi: *plug in Cable B to the Hub and to the ethernet port of your computer, then in chrome address bar, go to **<http://192.168.137.1>***

Angle Feedback Test App

The purpose of the Angle Feedback Test App is to demonstrate how to: 1) wirelessly connect multiple nodes to the hub, 2) receive real-time haptic feedback based on node angle changes, and 3) collect and save data from a trial.

1) Turn on 3 Nodes

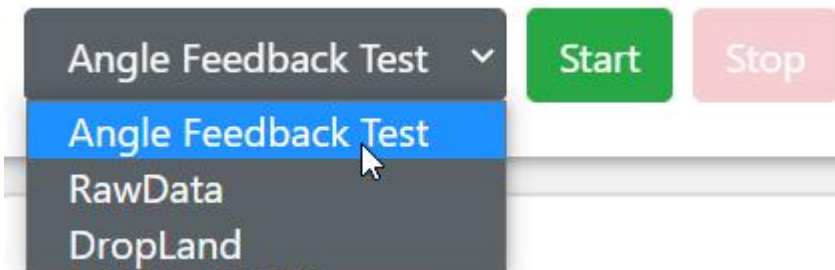


Slide switch toward middle to turn node on



Green light will blink after the node is on and running

2) Select “Angle Feedback Test” App



3) Click “Search”

Node List






Angle Feedback Test App (*cont.*)

4) Configure 1 Sensor Node and 2 Feedback Nodes as Shown Below:

Node List

Search

Connect




Type	Position	MAC	
sensor ▾	sensor ▾	88:6B:0F:E1:D8:A0	
feedback ▾	min feedback ▾	88:6B:0F:E1:D8:44	
feedback ▾	max feedback ▾	88:6B:0F:E1:D8:93	

5) Click “Connect”

Node List

Search

Connect

Type	Position	MAC	
sensor ▾	sensor ▾	88:6B:0F:E1:D8:A0	
feedback ▾	min feedback ▾	88:6B:0F:E1:D8:44	
feedback ▾	max feedback ▾	88:6B:0F:E1:D8:93	

6) “Ready to collect data” Will Appear after Node Connection is Complete

Angle Feedback Test ▾

Start

Stop

✓ *Ready to collect data*

Angle Feedback Test App (cont.)

7) In App Configuration, Enter Settings as Shown Below:

App Configuration

Trial Name	trial_1
Feedback Settings	
Feedback On	true
Max Threshold Angle	30
Min Threshold Angle	-30
Save Options	
Save Mode	xlsx

8) ① Hold Sensor Node Vertically (in Orientation Shown Below)
Then, ② Click “Start”



✓ Ready to collect data

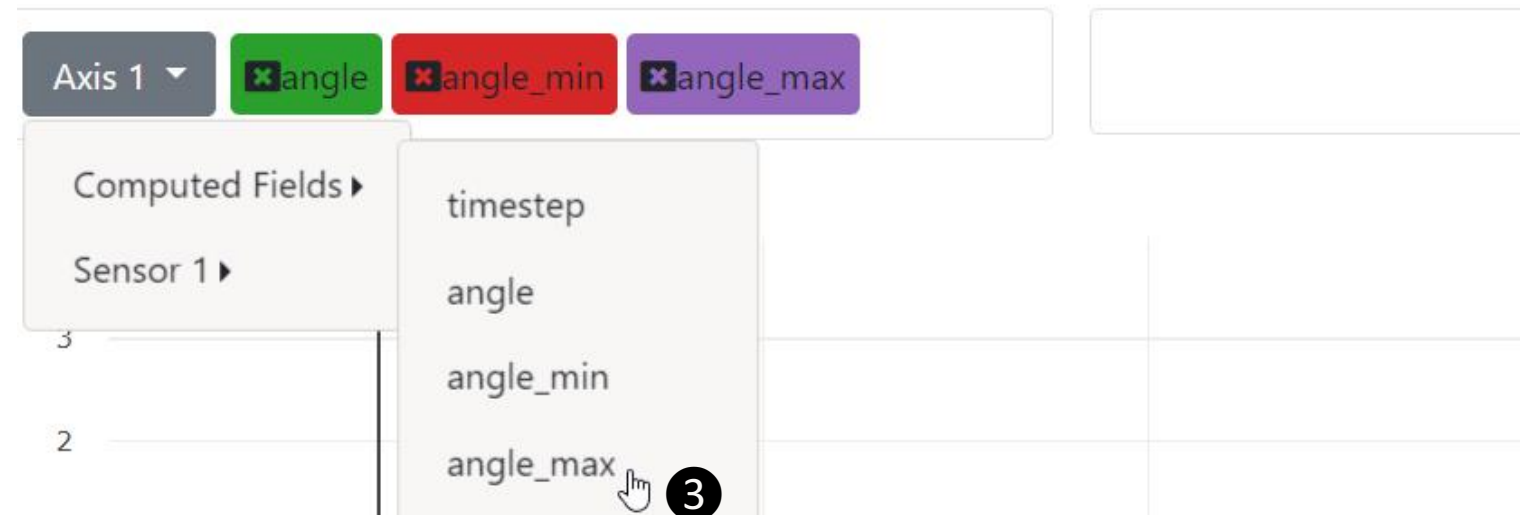
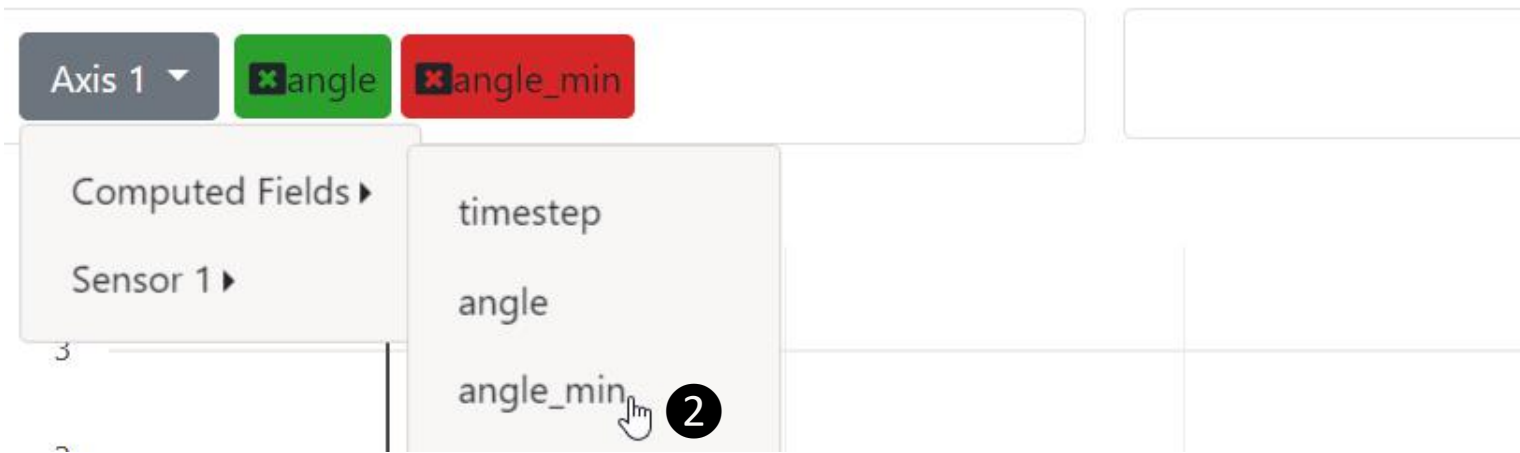
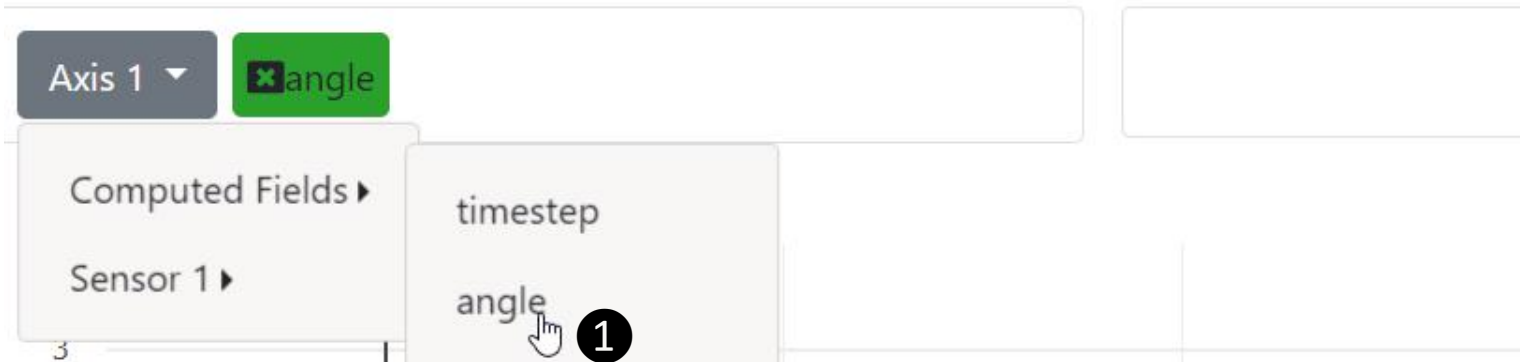
9) Rotate Sensor Node to the Right and Left (in Orientation Shown Below)



Note: as the sensor node is rotated to the left and right, observe haptic feedback vibration from the min_feedback node and max_feedback node when the angle limits are exceeded

Angle Feedback Test App (*cont.*)

10) Click Axis 1 > Computed Fields > ① angle, ② angle_min, ③ angle_max



Angle Feedback Test App (*cont.*)

11) Rotate the Node and Observe the Angle Change and Feel the Haptic Vibrations when the angle_min and angle_max Thresholds are Exceeded

Plot Data

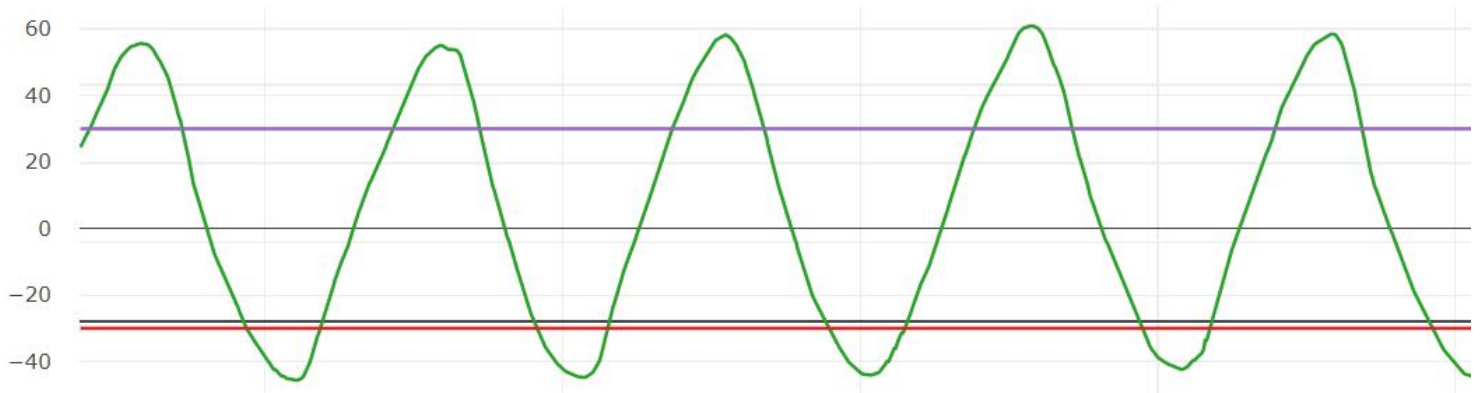


Axis 1 ▾

✕angle

✕angle_min

✕angle_max



12) When Done, Click “Stop”

Start

Stop

App running

Angle Feedback Test App (cont.)

13) After Clicking “Stop”, a File from that Trial will Appear under Download Data. Click the File (e.g. trial_1) to Download it to the Computer or Phone.

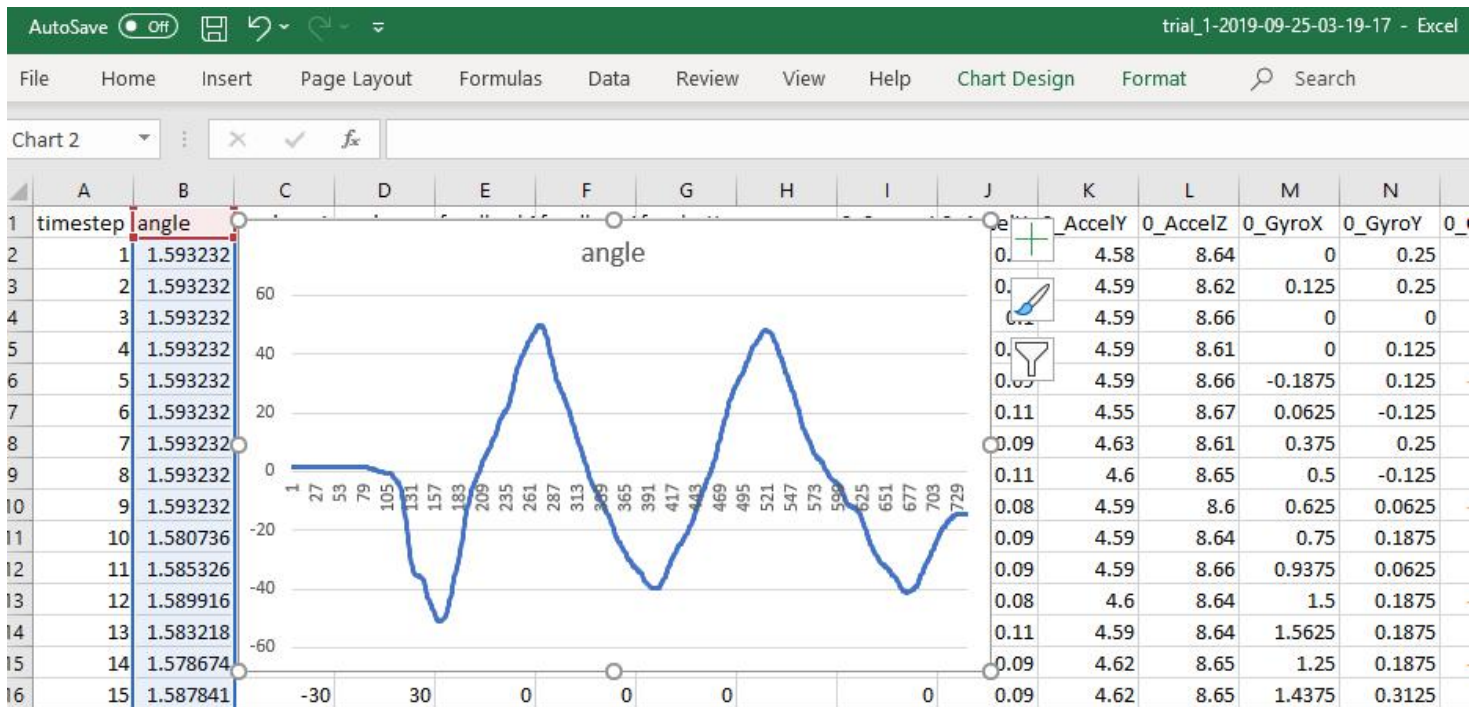
Download Data

Delete Selected

Download Selected

<input checked="" type="checkbox"/>	Name	Date▲	Duration	App	Type	Size	Rename	Delete
<input type="checkbox"/>	<u>trial_1</u>	2020-07-24-09-36-16	0:00:14	Angle Feedback Test	.xlsx	1.1 MB		

14) Open the Downloaded File (e.g. in Excel) to View the Data from that Trial



Angle Feedback Test App Finished!