

App Guide
Standing Balance
(Trunk Side Angle)

SageMotion
Wearable Biofeedback System



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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



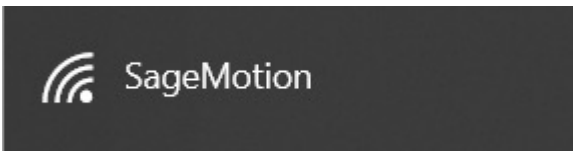
Node Charging Station

Wirelessly Connect to Computer or Cellphone

1) Connect Cable A to Battery and to Hub



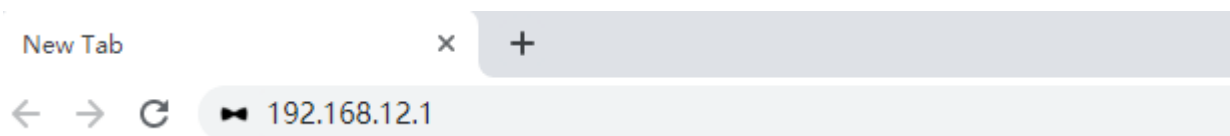
2) On Computer/Cellphone, Connect to Wi-Fi: "SageMotion"



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>

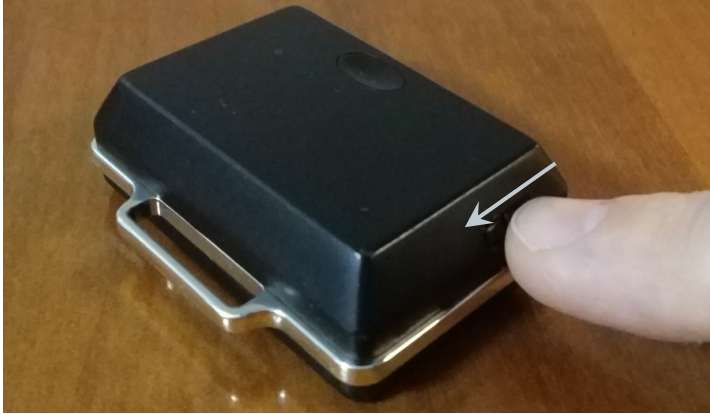


[Note] If Computer Doesn't Have Wi-Fi: plug in Cable B to the Hub and to the ethernet port of your computer, then in chrome address bar, go to **<http://192.168.137.1>**

Standing Balance App

The purpose of the Standing Balance App is to record, analyze, and provide feedback for Trunk Side Angle while subjects perform Standing Balance activities.

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 “Standing Balance 2” App



3) Click “Search”

Node List



Standing Balance App (cont.)

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

Node List

Search

Connect

Type	Position	MAC	
sensor ▾	trunk ▾	88:6B:0F:E1:D8:9F	
feedback ▾	feedback_right ▾	88:6B:0F:E1:D8:96	
feedback ▾	feedback_left ▾	88:6B:0F:E1:D8:A6	

5) Click “Connect”

Node List

Search

Connect

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



Standing Balance Trunk S ▾

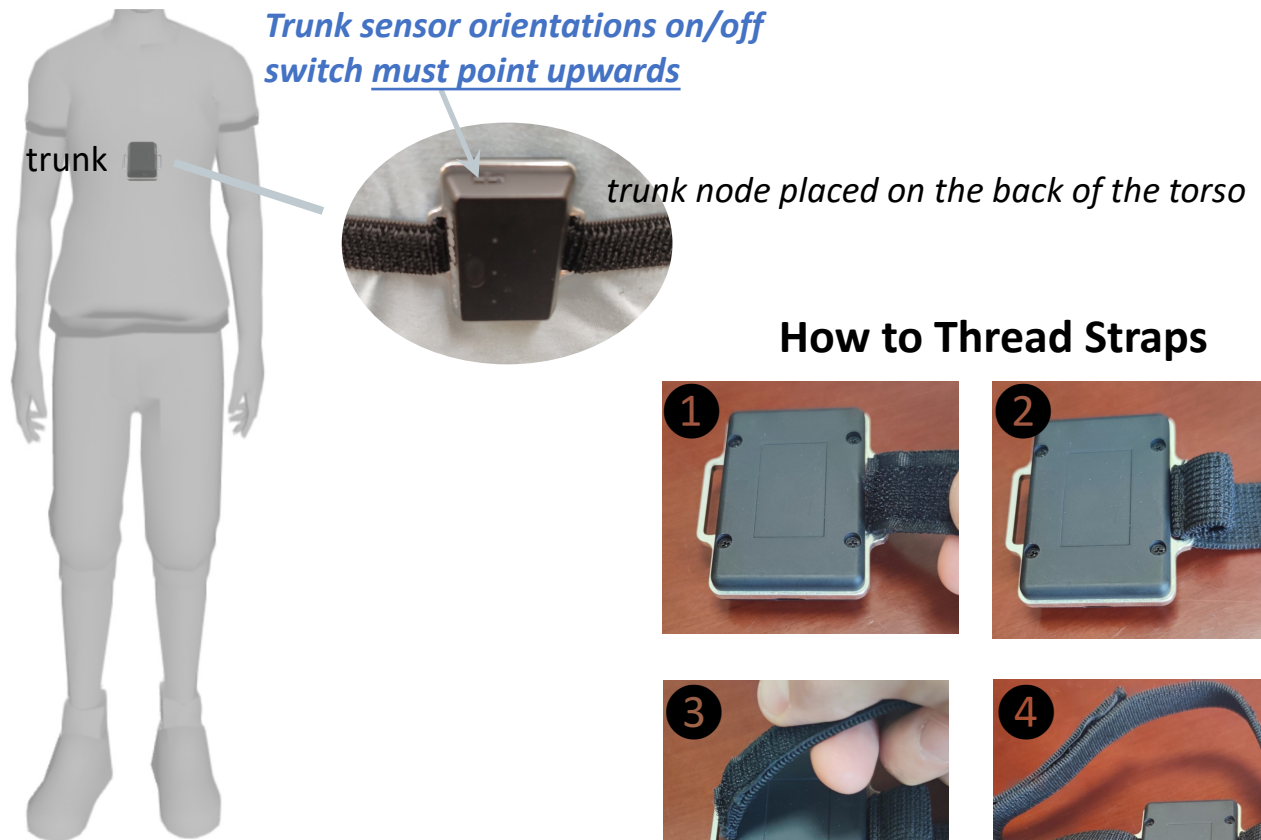
Start

Stop

✓ Ready to collect data

Standing Balance App (cont.)

7) Thread Straps through Nodes and Attach at Locations Shown Below:



[Note] feedback_left and feedback_right nodes can be placed at any location

8) Click “Blink” for each Node to Confirm Correct Locations (red LED for given node blinks 3 times on click)

Type	Position	MAC			
sensor	trunk	88:6B:0F:E1:D8:A6			
feedback	feedback_right	88:6B:0F:E1:D8:9F			
feedback	feedback_left	88:6B:0F:E1:D8:96			

Standing Balance App (*cont.*)

9) In App Configuration, Enter Settings (Example Below)

App Configuration

Trial Name trial_1

Feedback Settings

Feedback On true

Push or Pull Feedback? push

Max Angle Threshold 10

Min Angle Threshold -10

Save Options

Save Mode xlsx

Standing Balance App (*cont.*)

10) Click “Start” to Start Running the App

Standing Balance Trunk S ▾

Start

Stop

✓ *Ready to collect data*

11) After the Trial is Finished, Click “Stop”

Standing Balance Trunk S ▾

Start

Stop

App running

12) 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.

Data List



<input type="checkbox"/> Name	Date▲	Duration	App	Type	Size	Rea
<input type="checkbox"/> balance_trial_1	2024-07-24-15-16-36	0:00:02	Standing Balance Trunk Side Angle	.xlsx	143.1 kB	

Standing Balance App (*cont.*)

Description of Data in Downloaded File

time (sec): time since trial start

TSA (deg): trunk side angle (medial-lateral), positive is to the right

max_lean_right (deg): The feedback threshold of max right lean

max_lean_left (deg): The feedback threshold of max left lean

SensorIndex_1: index of raw sensor data

AccelX/Y/Z_1 (m/s²): raw acceleration data

GyroX/Y/Z_1 (deg/s): raw gyroscope data

MagX/Y/Z_1 (μT): raw magnetometer data

Quat1/2/3/4_1: quaternion data

Sampletime_1: timestamp of the sensor

Package_1: package number of the sensor