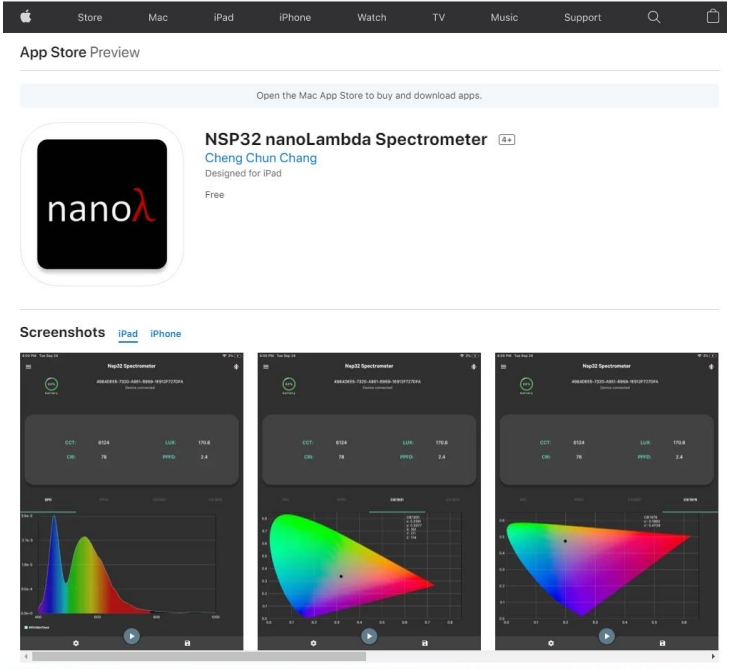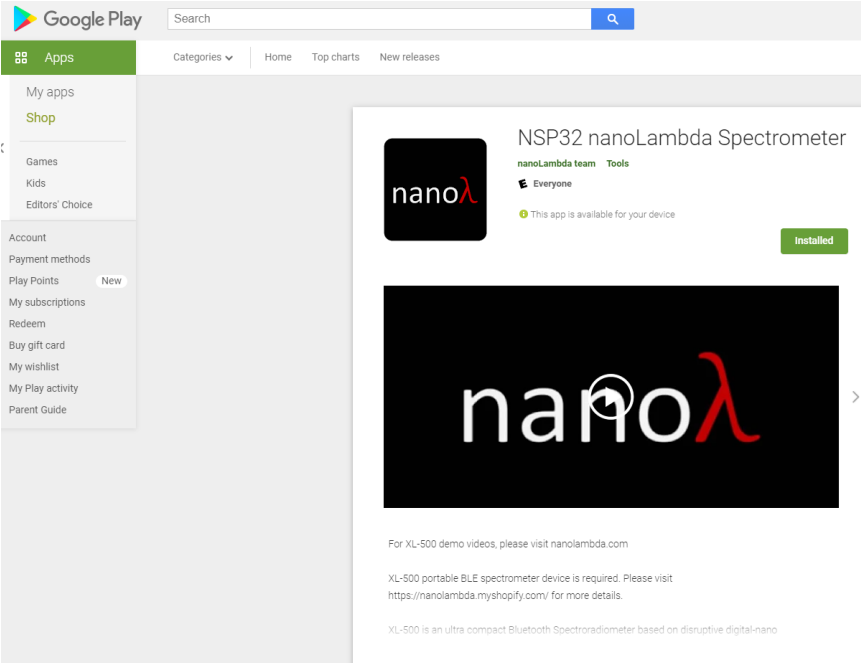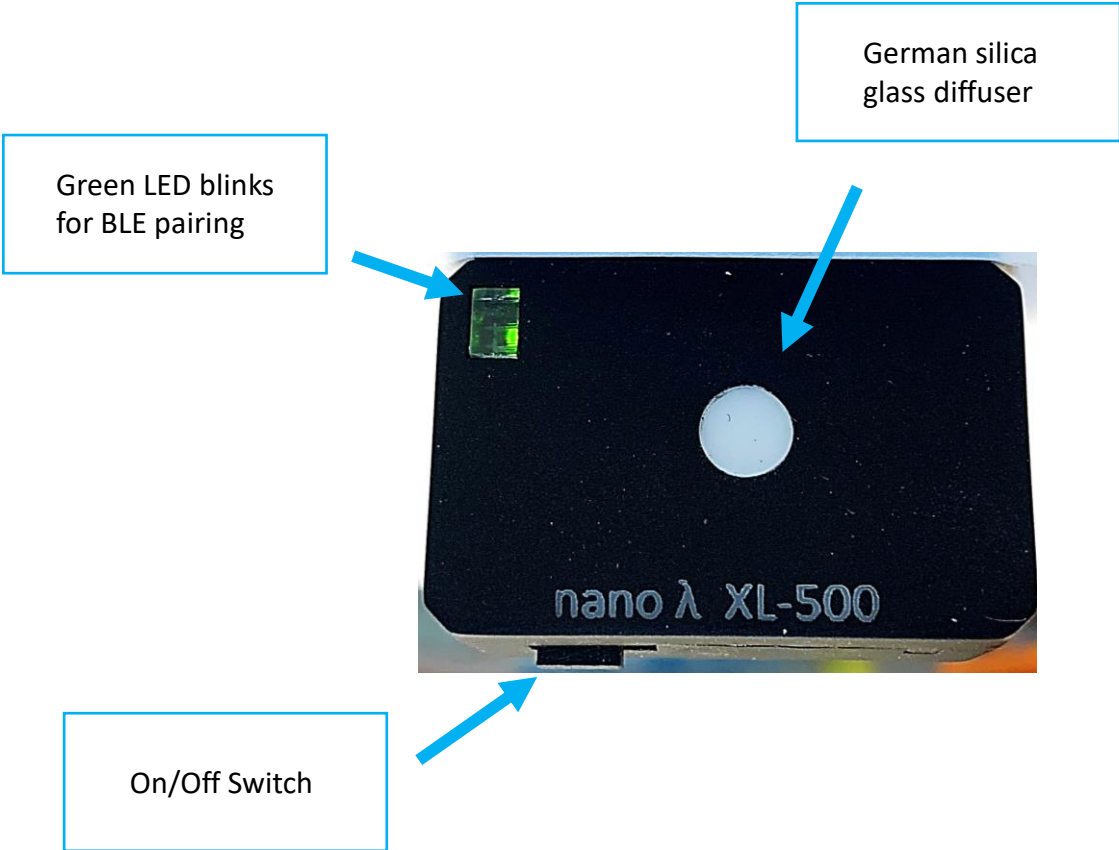# 1. Go to the Google Play online and Install the NSP32 nanoLambda App on your Android Device
*Example procedures are based on Android

2. The Nano XL-500
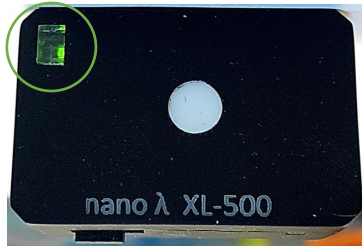
German silica glass diffuser

Green LED blinks for BLE pairing

On/Off Switch

nano λ XL-500

Please Note:
The mini-USB port is only for charging the Nano XL-500 Battery

Communication with the Nano XL-500 is achieved wirelessly through your phone, pad or tablet.
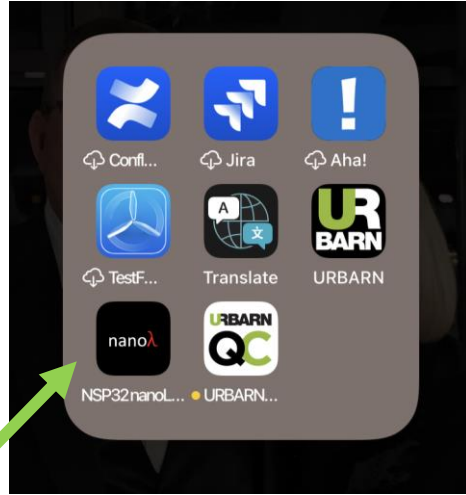
nano λ XL-500

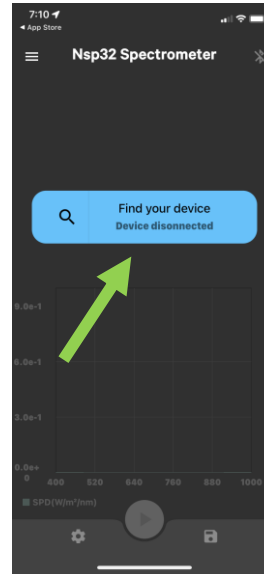# 2. Start Up Basics

Turn on the XL-500
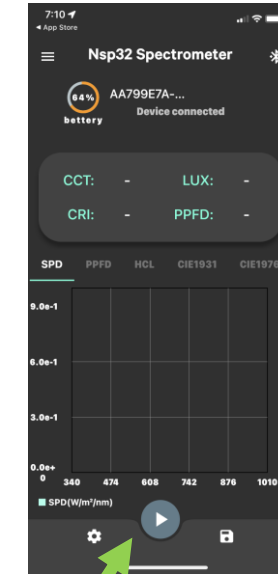

Green LED blinks
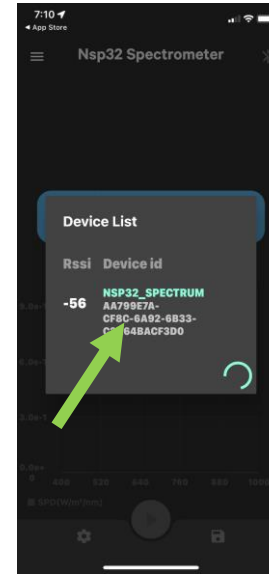for BLE
(Bluetooth)
pairing

Run the App
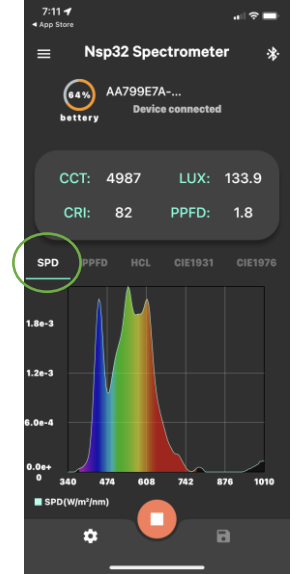

Select NSP32-Spectrometer
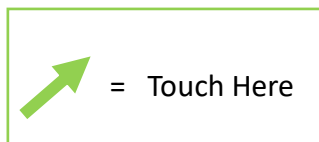
Live Spectrum

Opening Screen

Start

"SPD"
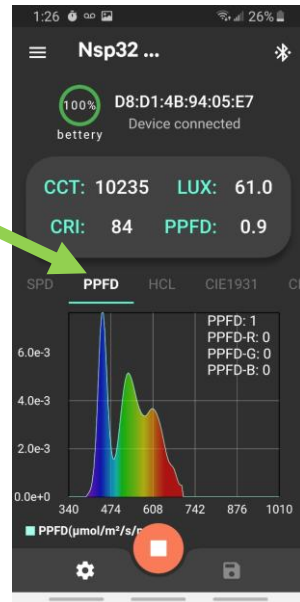Total Spectral
Power Distribution

= Touch Here

4. Different Screens Show Values
(access screens by sliding your finger horizontally across the screen or touching the screen name itself)
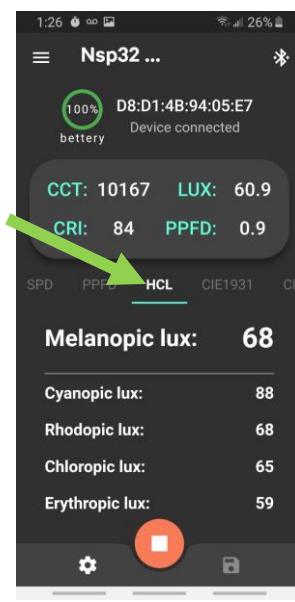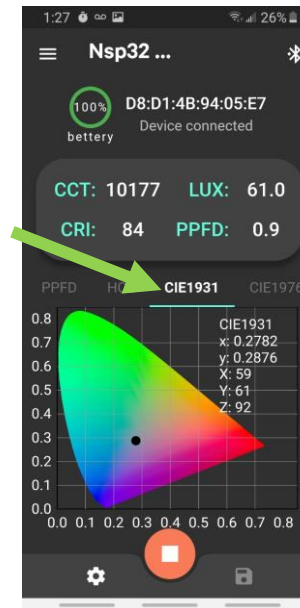
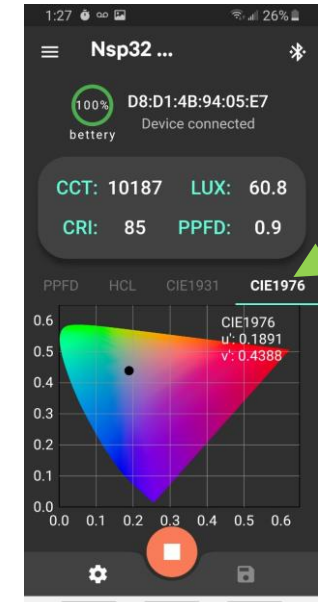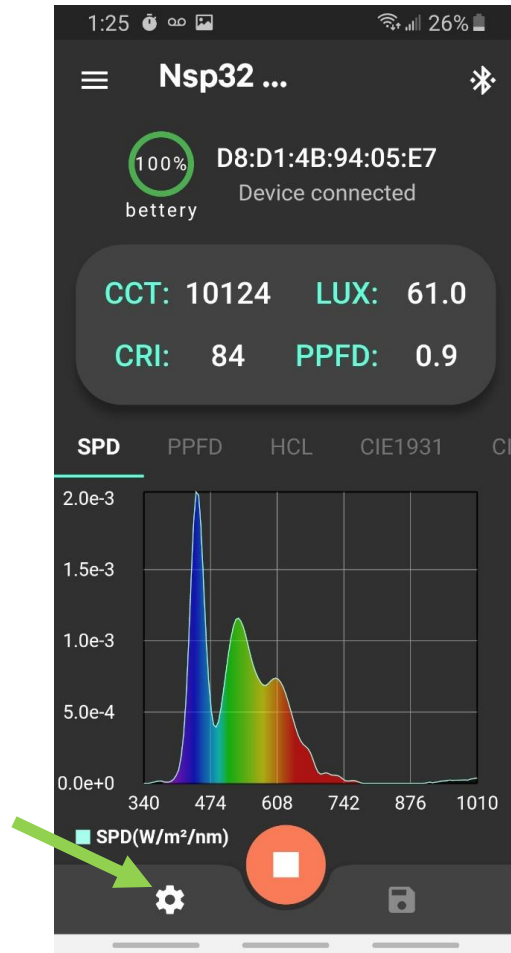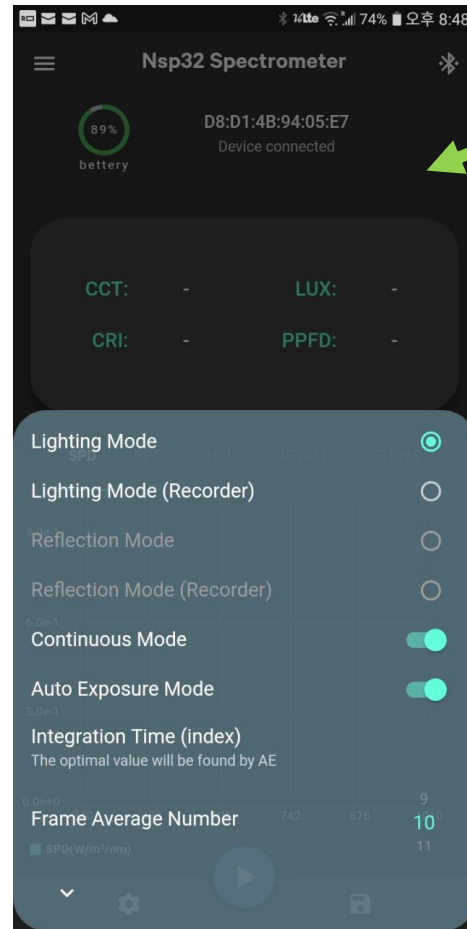| SPD (Spectral Power Distribution)	PPFD for Agriculture (Photosynthetic Photon Flux Density 400-700nm)	5 Different Lux Values for HCL (Human Centric Lighting)	COLOR CIE1931 XYZ, xy	COLOR CIE1976 u' v'

= Touch Here

4. Settings: Using the Nano for "Continuous Recording"

Touch, then going back to previous screen

Normal Measurement

Recording Function [Start Time, End Time, Interval]

Reserved For future [Reflection Measurement]

Reserved For future [Reflection Recording]

ON: Continuous Measurement OFF: One Time Measurement

ON: Auto Exposure OFF: Manual Integration Time Setting

Integration Time [Level] Setting

Frame Average Setting [for stable measurement]

↗ = Touch Here

- AE is recommended for typical measurement
- Frame Average > 10 is recommended

5. The Main Menu
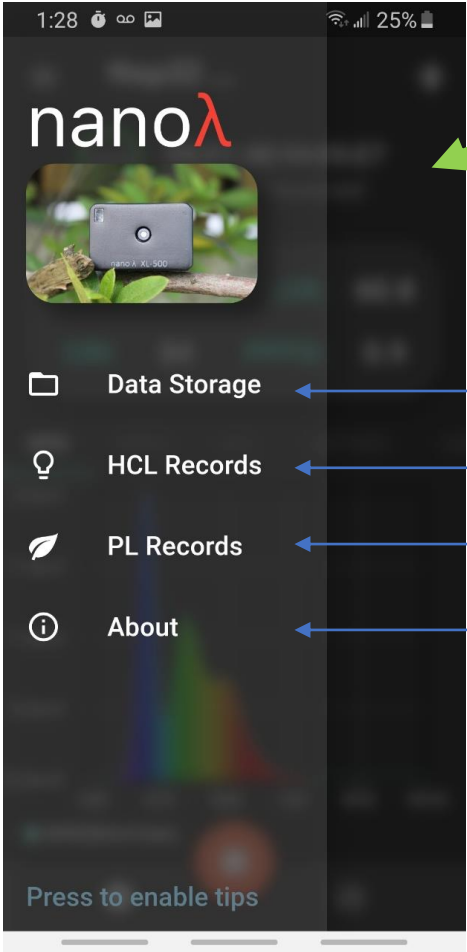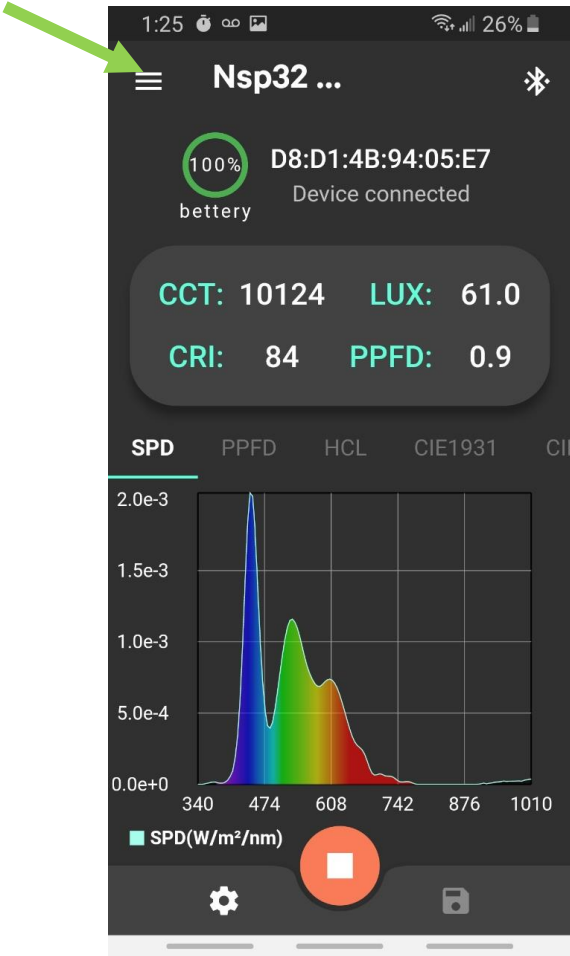
Touch to return to to previous screen

Saved Measurement Data

Saved HCL(Human Centric Lighting) Data

Saved PL(Plant Lighting) Data
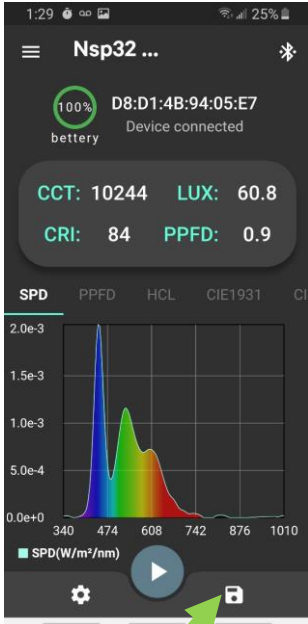
About XL-500

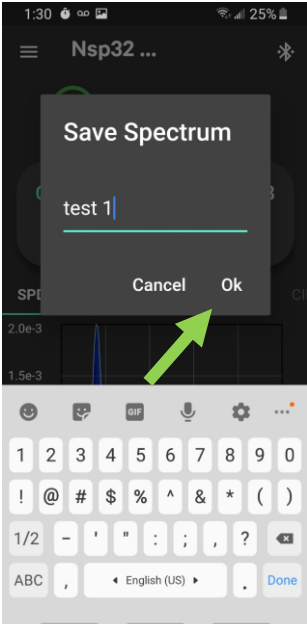= Touch Here

6. How to Record and Save Each Measurement Data Result
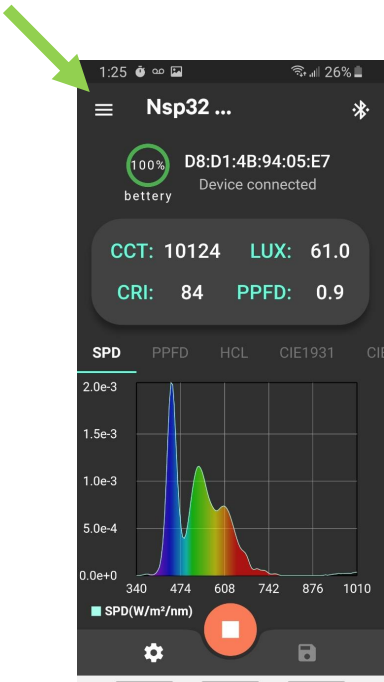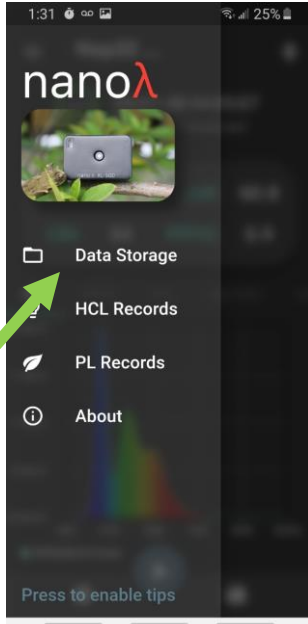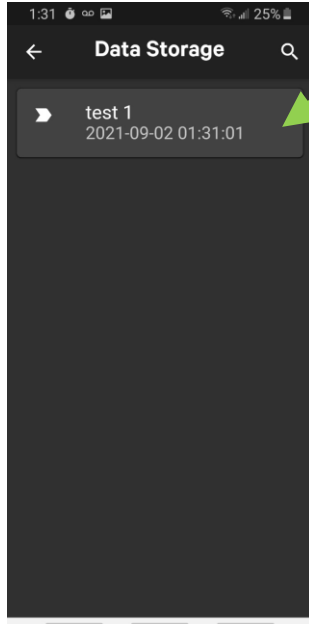

STOP   SAVE   Type File Name   MENU   Data Storage   File stored

= Touch Here

When you click the file, the data will show the graph and data for all 5 screens

6. Recording Data Over a Period of Time: Using the Preset Value Setting

Settings Icon

Lighting Mode (Recorder)

Recording Mode Start

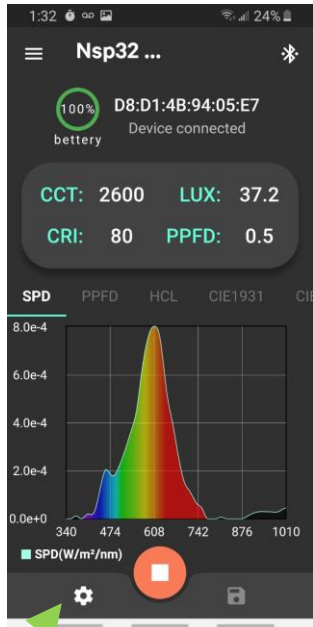Setting Recording Time Duration & Interval

Recording in Progress

Maximum number of recorded files on the unit is 8192 over a session.
Be sure to save recorded data as a new session will over-write existing data

= Touch Here

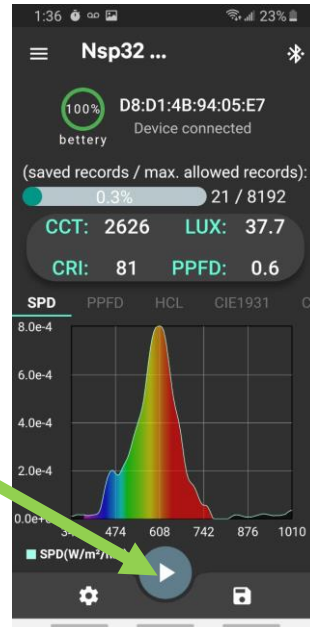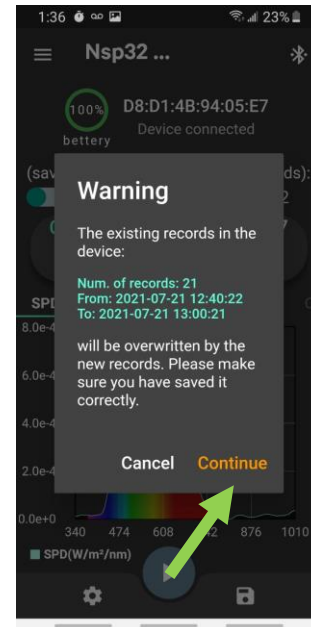# 7. Recording : Using a Custom Value Setting (Frequency Measured in Seconds) Step 1
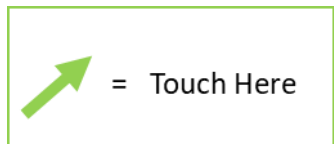
Settings Icon

Lighting Mode
(Recorder)
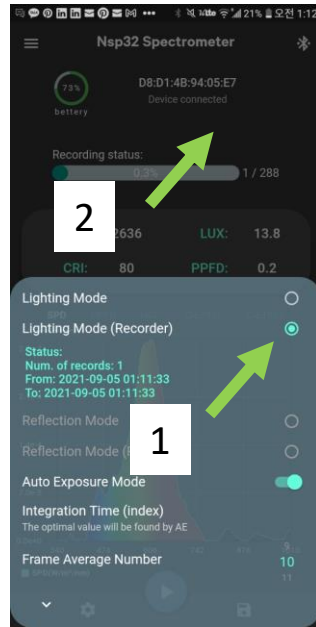
Recording Start

Select Custom Setting
(able to measure
frequency of snapshot in
blocks of seconds)

Duration
(see next slide)
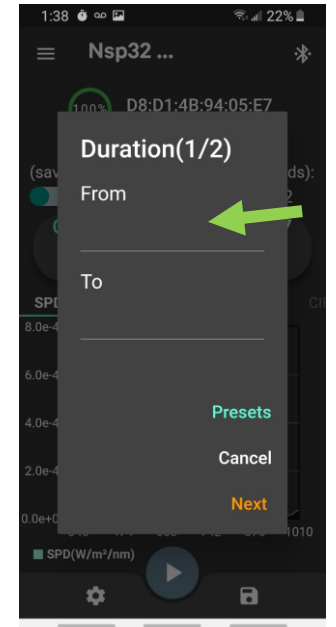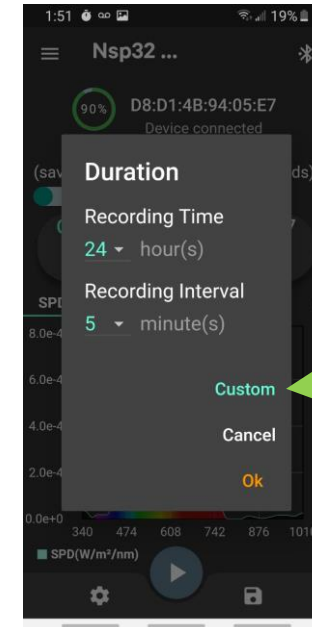
Maximum number of recorded files on the unit is 8192 over a session.
Be sure to save recorded data as a new session will over-write existing data

= Touch Here

8. Recording : Using a Custom Value Setting ... (Frequency Measured in Seconds)   Step 2

Touch Start Date then "OK'

Touch "Hour" and adjust

Touch "Minute" and adjust

Touch "AM or PM" and then "OK"

Touch "Next"
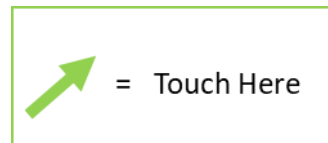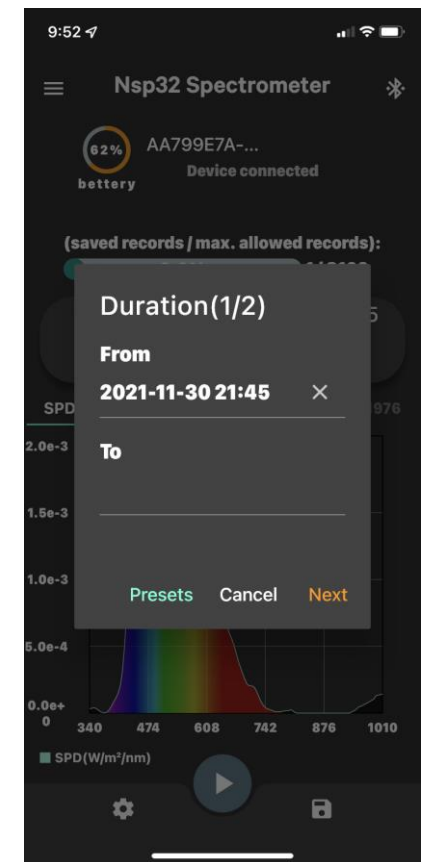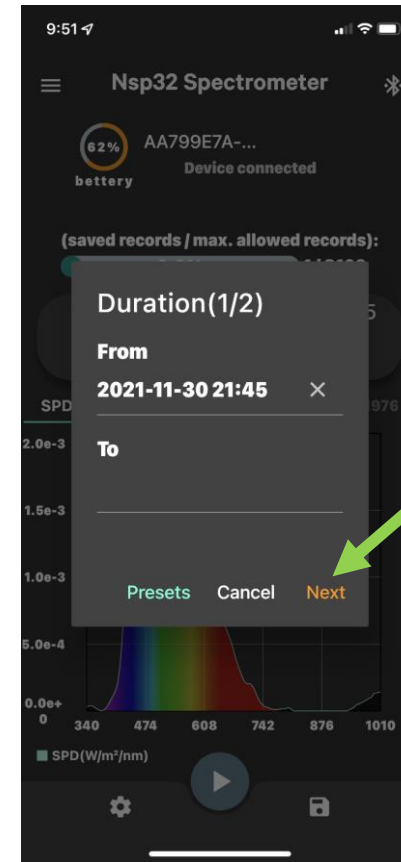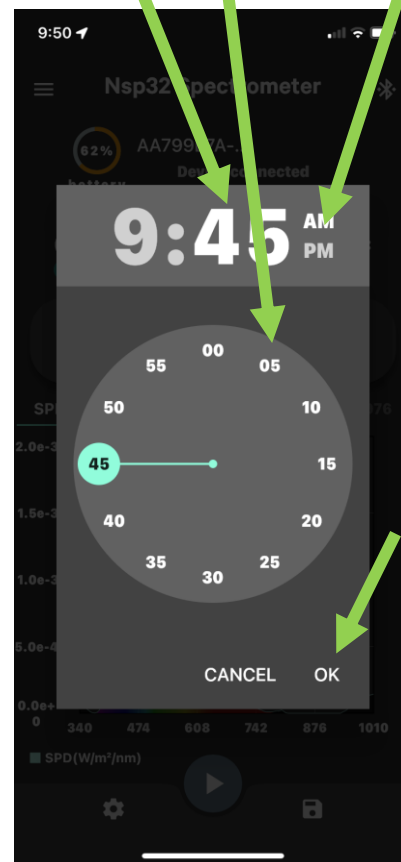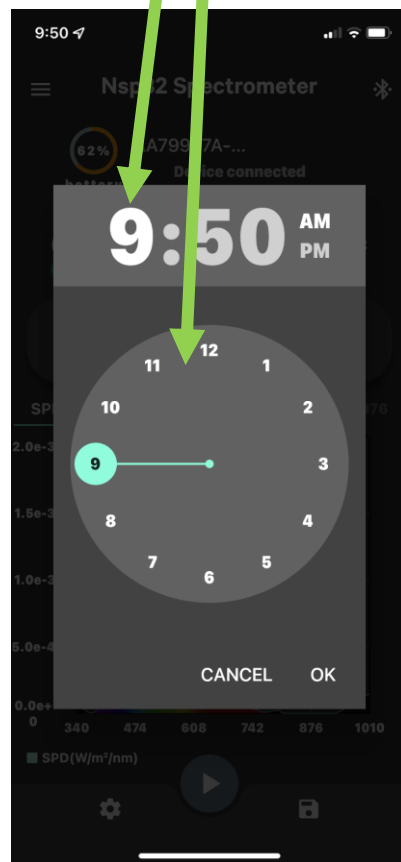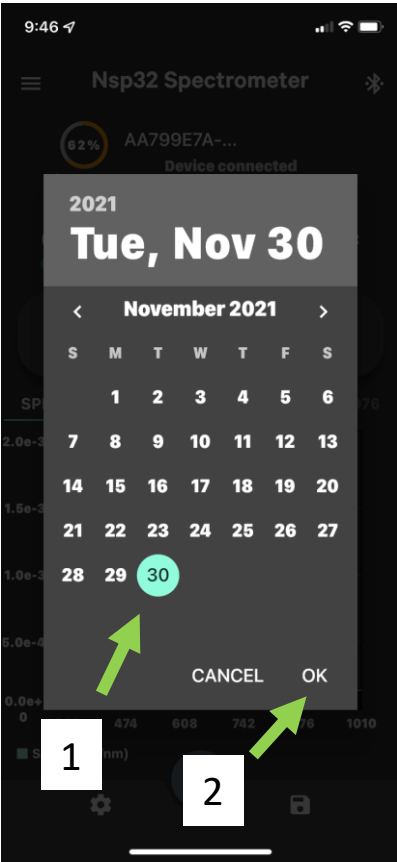
= Touch Here

8. Recording : Custom Time Setting (Frequency Measured in Seconds)   Step 3
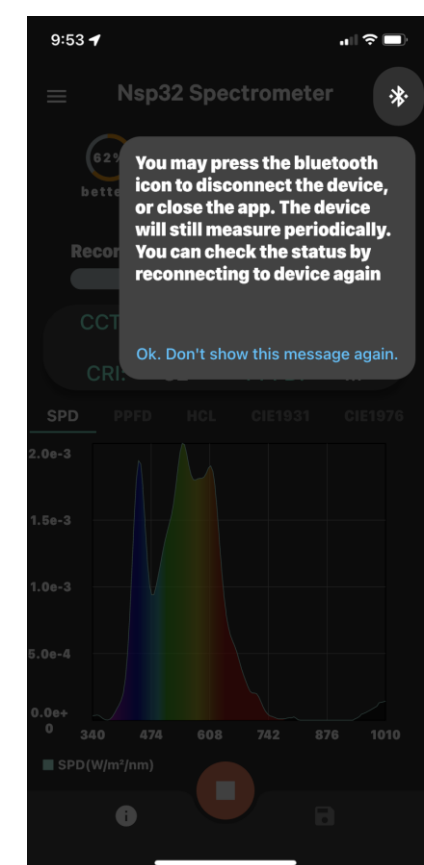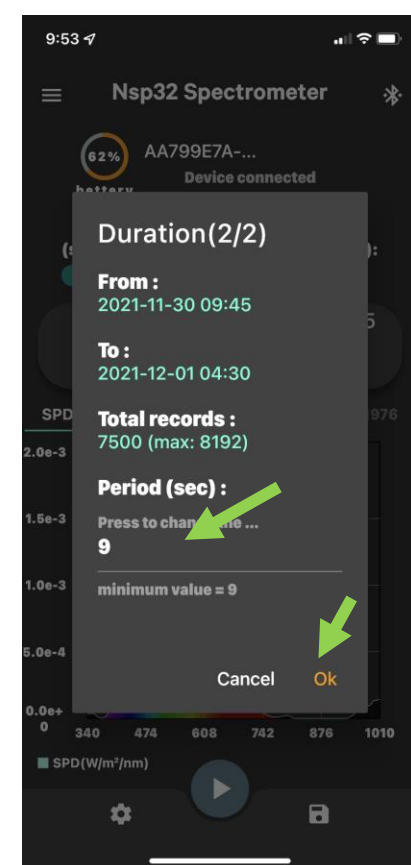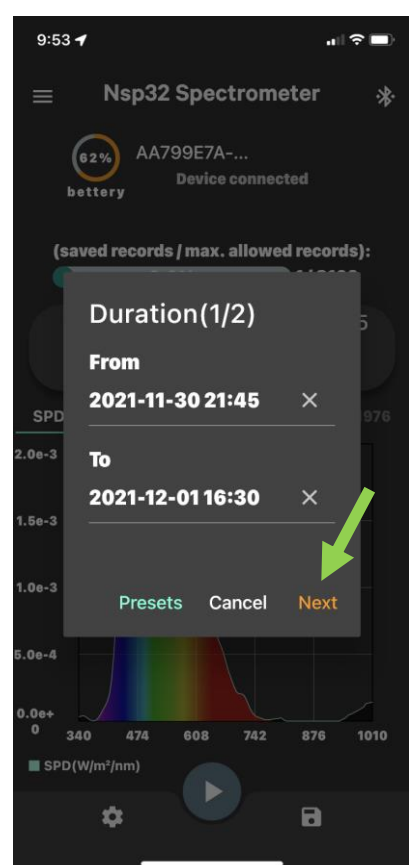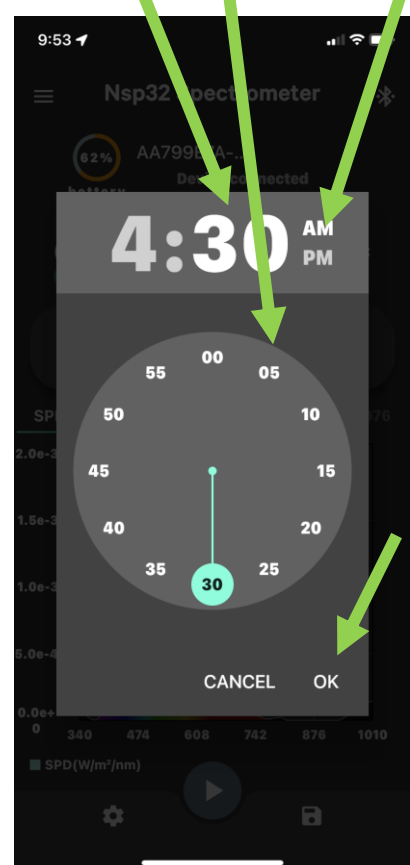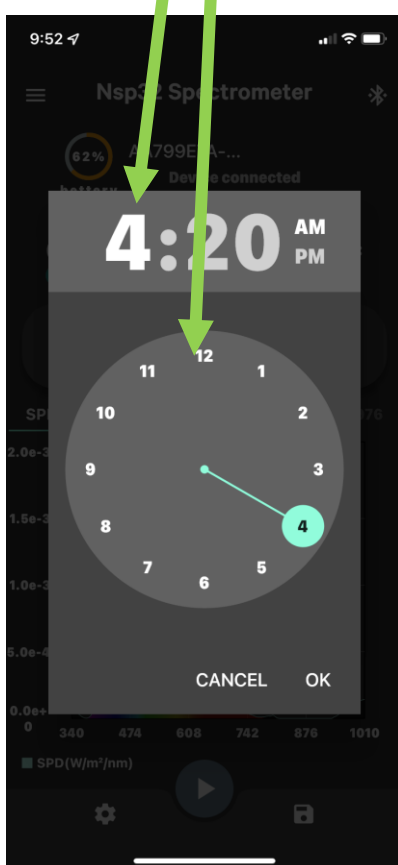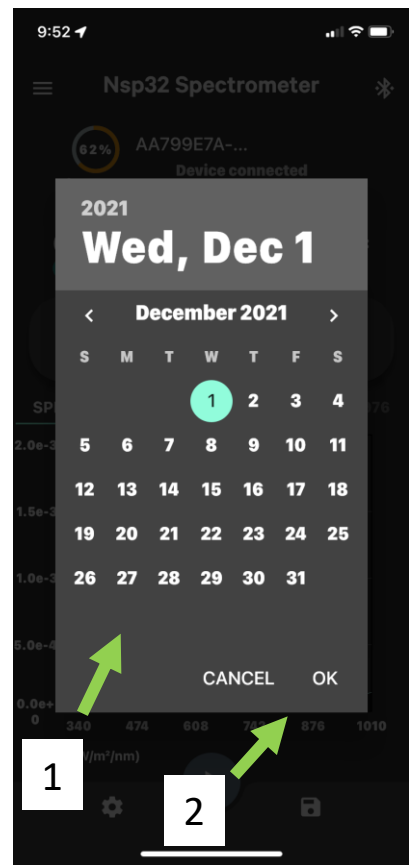
Touch Start Date then "OK'

Touch "Hour" & adjust

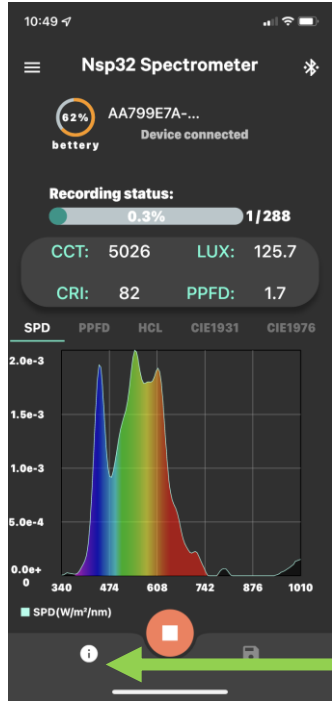Touch "Minute" & adjust

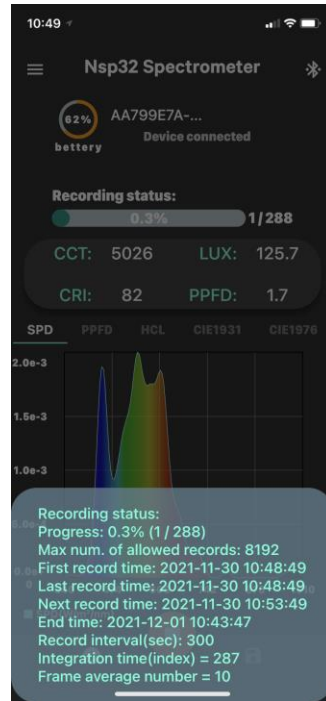Touch "AM or PM" and then "OK"

Touch "Next"

Adjust Frequency Period
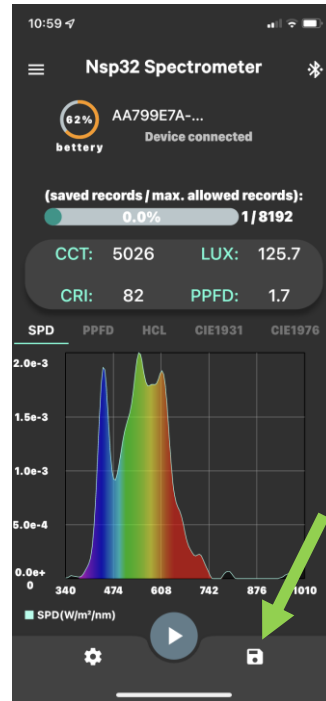

= Touch Here
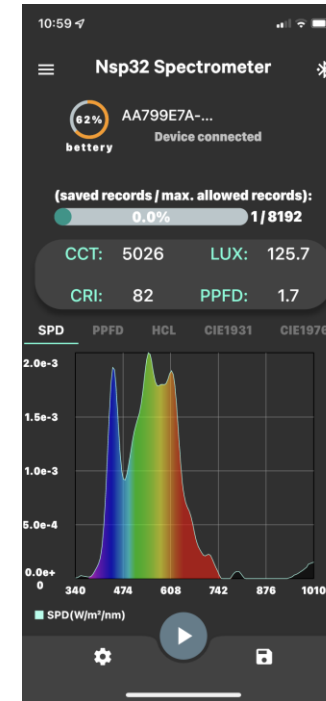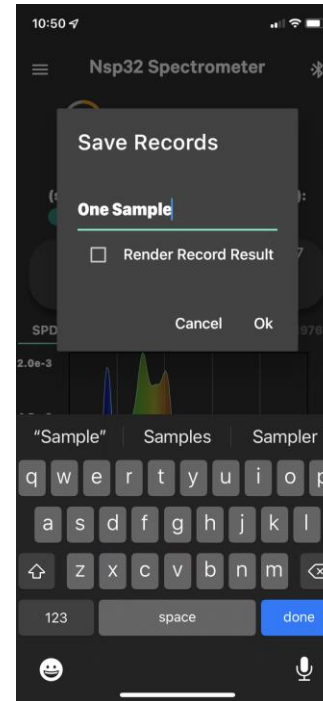
9. Recording and Saving Records

Recording …

Recording Progress

Recording Finished
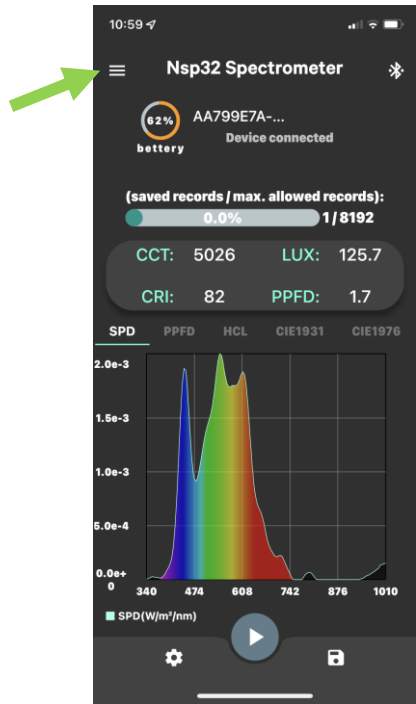Touch Save Button

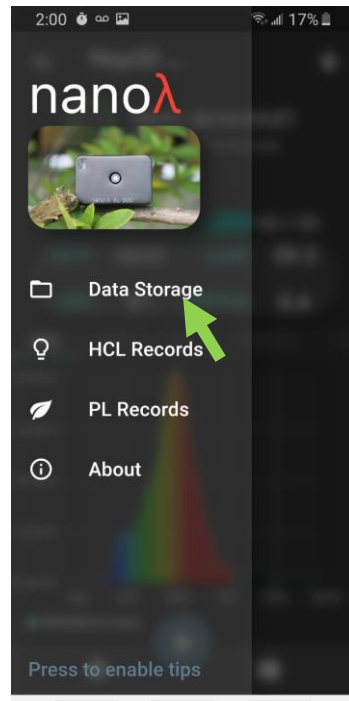Save Records Enter
File Name and Press
"OK"
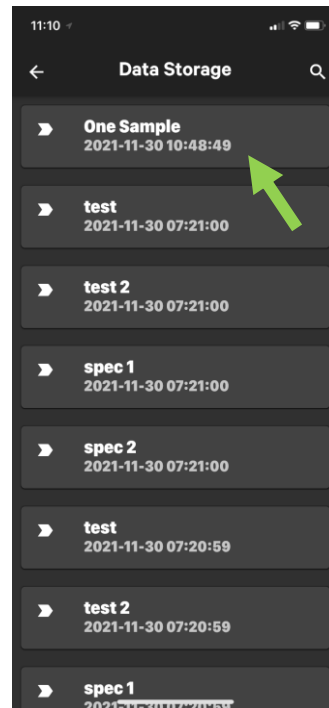


```
= Touch Here
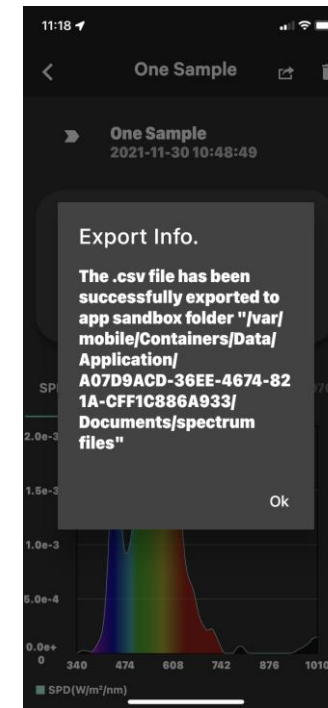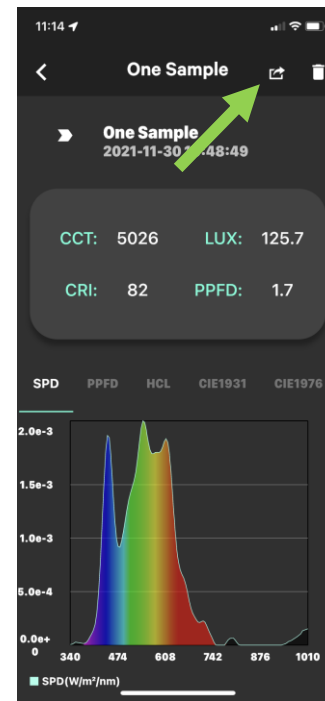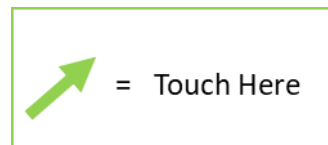```

# 10. See Data and Data Export

Touch Menu

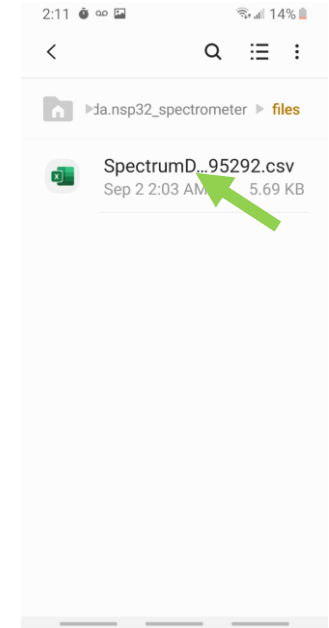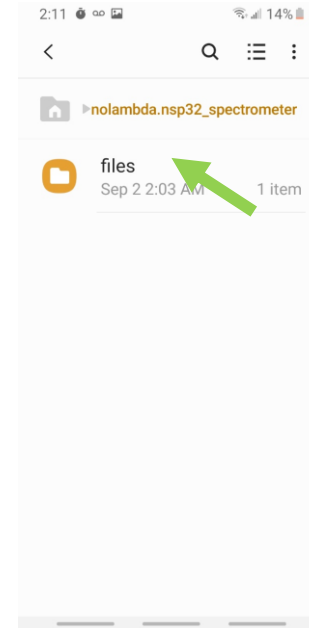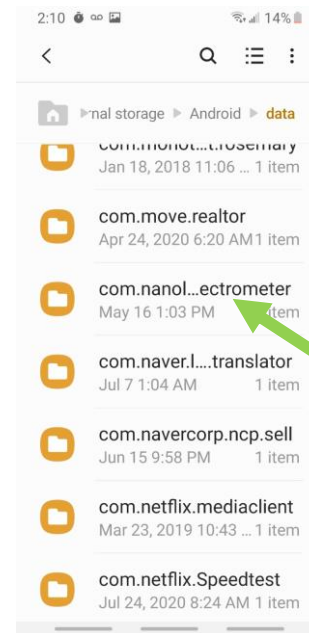Touch Data Storage

Find Data File

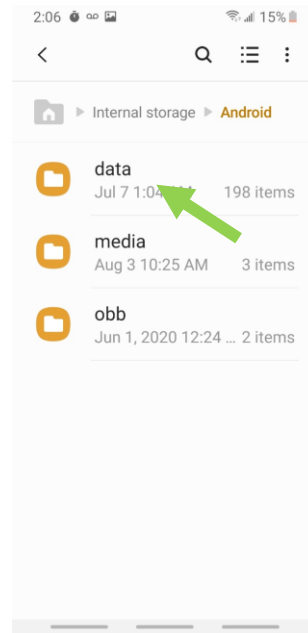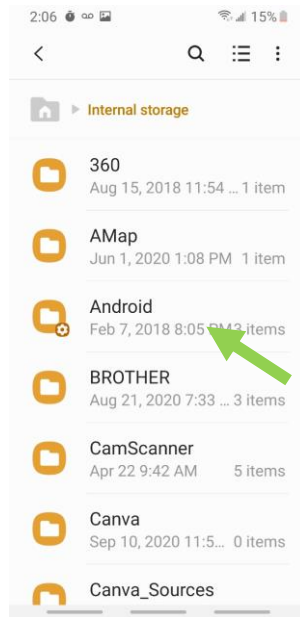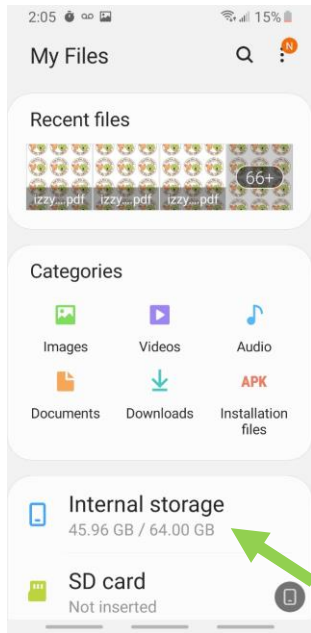Look at Stored Data and Export



- File location in IOS


= Touch Here

# 10. Find Exported File in Android File System

File Manager

# 11. Send/Share the File

Select File to Share

Share File using email or others



1

2