



**NORTH POLE  
ENGINEERING**

# TEMPERATURE MONITOR APP

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# OVERVIEW

## TEMPERATURE MONITOR APPLICATION

The North Pole Engineering iPad temperature application is designed to show and record temperature data in real time from personal temperature sensor devices.

## SYSTEM REQUIREMENTS

iPad running iOS 13 (Temperature Monitor App)

iPad or iPhone running iOS13 (WASP UTIL Device)

WASP-PoE2, WASP-PoE4 or WASP-N

Temperature sensors supporting the ANT+ environmental temperature profile

## APPLICATION INSTALLATION

The Temperature monitor application can be downloaded from Apple Test Flight. Make sure Apple Test Flight app is installed on your iPad. Use the following URL to download the TempMon app on your iPad: [ccc.ccc.ccc](http://ccc.ccc.ccc)

The latest version of WASP util is required and can be downloaded from Apple Test Flight with the following URL: [bbb.bbbb.bbbb](http://bbb.bbbb.bbbb)

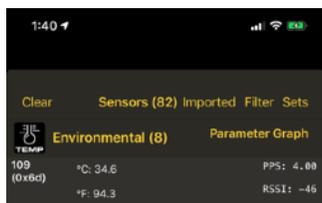
## NETWORKING REQUIREMENTS

The devices running WASP Util and the Temperature Monitor apps should be configured to the same network that the WASP-PoE2, WASP-PoE4 or WASP-Ns are operating on. This allows the sensor data collected by the WASPs to be visible to the Temperature Monitor app and WASP Util. The following screen from WASP Util shows WASPs that are visible to the WASP Util application. This provides positive confirmation that the WASP Util app and the Temperature Monitor App when configured to the same network will be able to receive data from the environmental temperature sensors. For detailed information on WASP setup, please consult the WASP-N or WASP-PoE users guides available on the North Pole Engineering Knowledge base at <http://npe-inc.zendesk.com>.



# TEMPERATURE SENSOR SETUP

## TEMPERATURE SENSORS



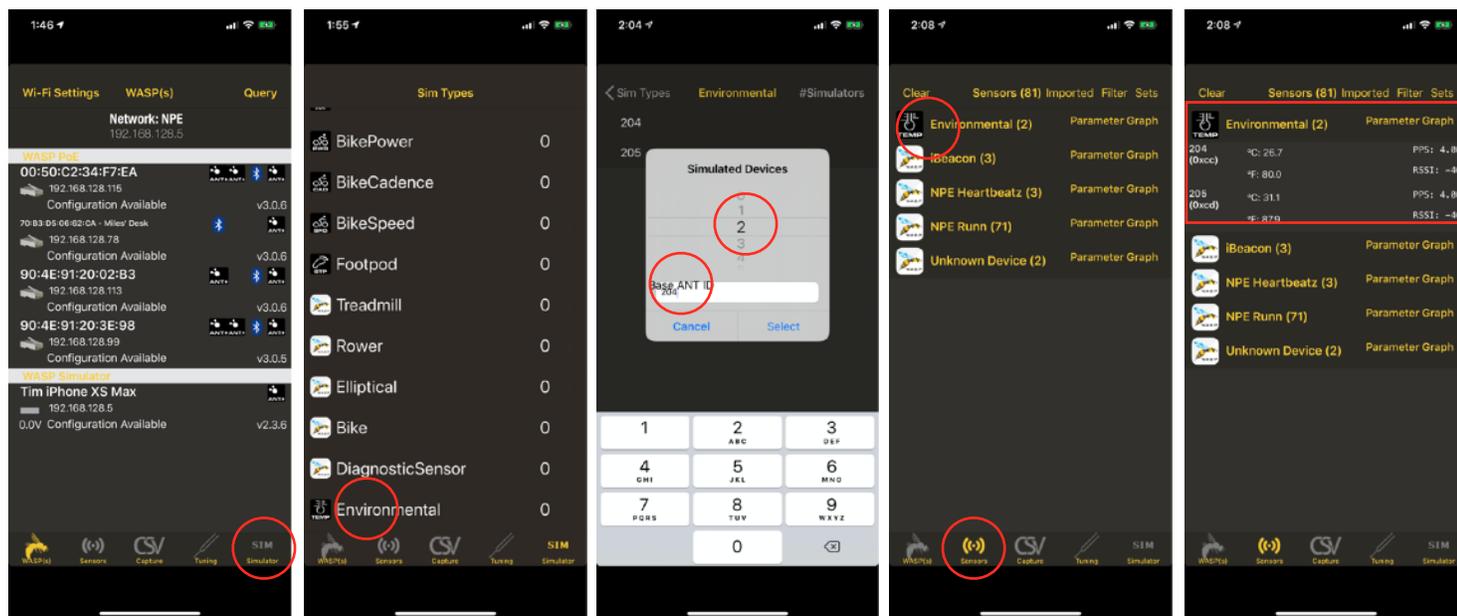
The temperature monitor application in conjunction with the WASP is designed to work with wireless temperature sensors that broadcast data using the ANT+ environmental temperature profile. Sensors supporting the ANT+ Environmental provide can be viewed with WASP Util. If a sensor is not visible in WASP Util, make sure it is powered and that the WASP Util app and the device running WASP Util are located on the same network.

## SIMULATING ANT+ ENVIRONMENTAL SENSORS

To facilitate testing, WASP Util can be used to simulate environmental sensors. To configure WASP Util for sensor simulation, select **SIM** from the bottom menu. In the sensor simulator menu select **environmental** from the sensor simulator types.

On the next screen, select the number of environmental sensors to simulate. In this example 2 was selected. Also, **set the base ANT+ ID**. The base ANT+ is the starting ANT+ device ID for the first simulated environmental sensor. The subsequent simulated device IDs will increment by one from the base device ID. For example 204, 205, etc.

Once configured the simulated environmental sensors will appear in the WASP Util **sensors tab** under the **environmental** sensors. Real-time sensor data from the **simulated sensors** is visible after selecting the environmental sensors.

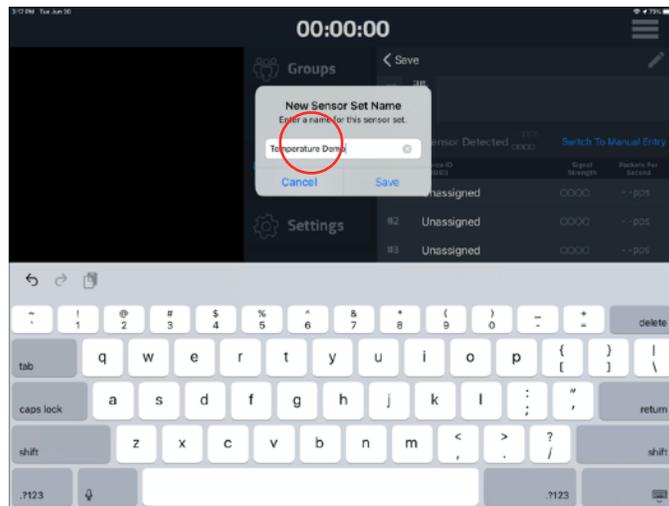
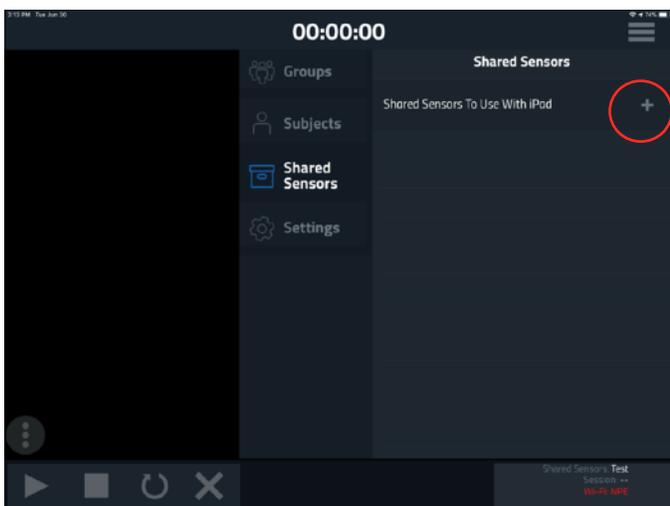


# TEMPERATURE MONITOR APP SETUP

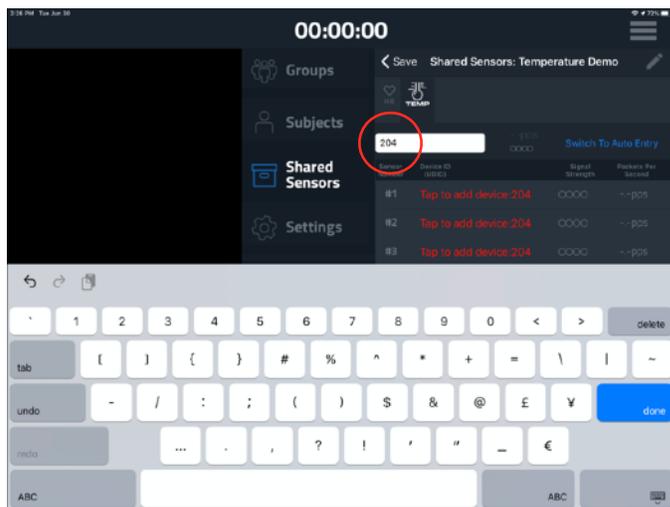
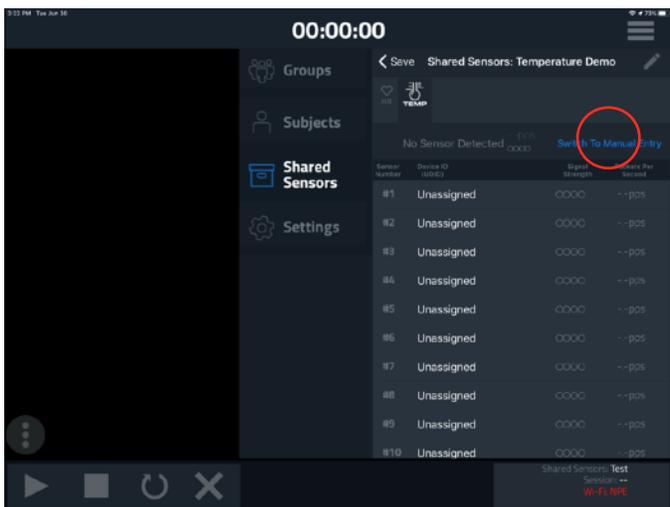
## SHARED SENSOR SETUP

The temperature monitor app currently supports a concept called shared sensors. What this means is that environmental sensors could be used by different individuals from day to day. To accommodate this approach individual sensors are assigned a sensor number in the system. The sensor numbers can then be assigned to individuals each data recording session.

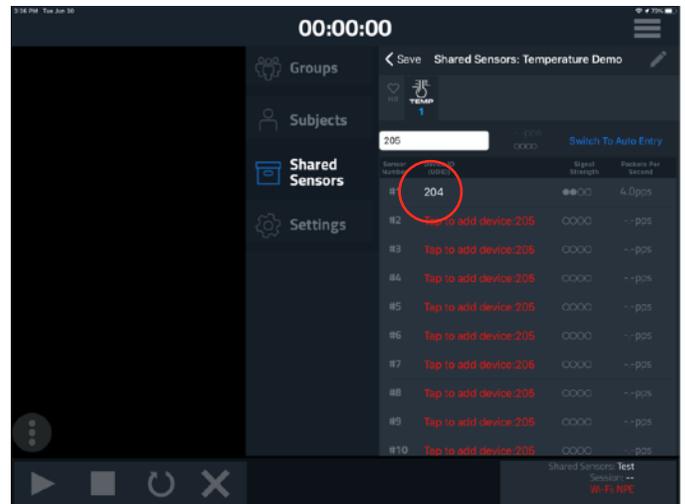
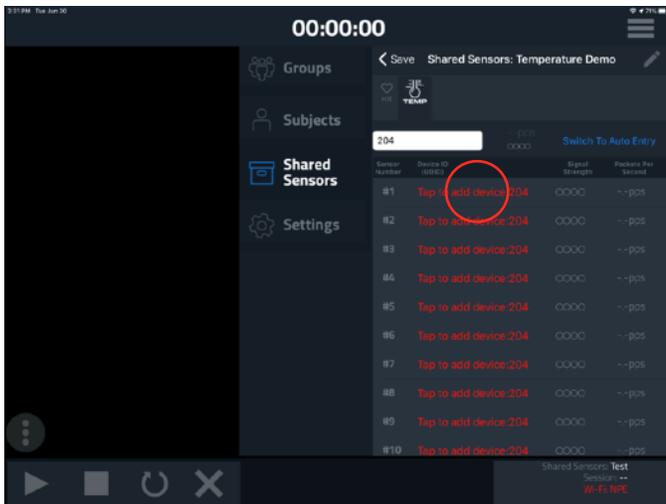
To set up a pool of shared sensors, open the Temperature monitor app, and select shared sensors from the main menu. Click the + next to the shared sensors to be used with iPad. Give the sensor set a name. In our example **Temperature Demo**.



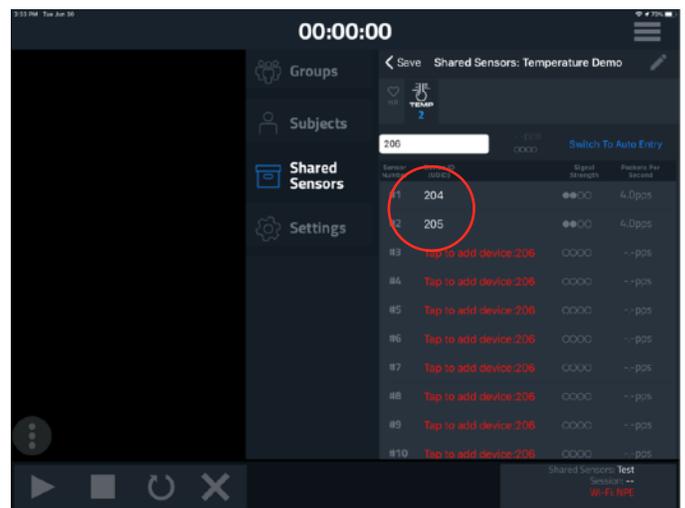
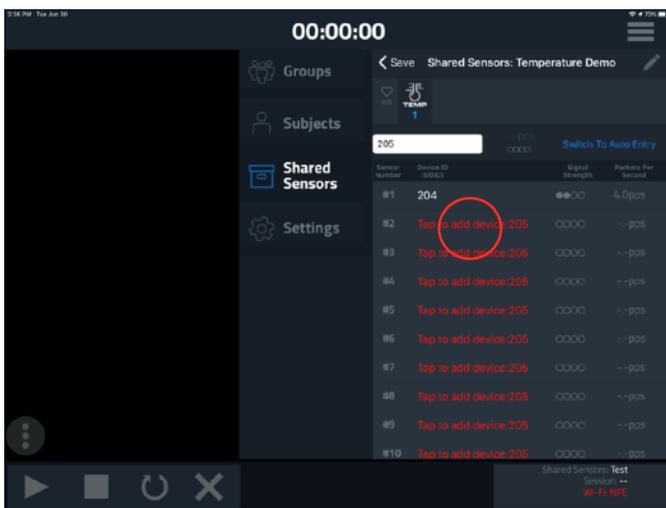
With the name set, individual environmental sensors can be associated to a sensor number. The first sensor in the sensor list needs to be assigned manually. Select **switch to manual entry**. In the Manual Sensor UDID box, enter the ANT+ ID of the sensor to be associated to sensor #1. For example **204**, which is the starting ANT+ ID configured in the WASP Util sensor simulator.



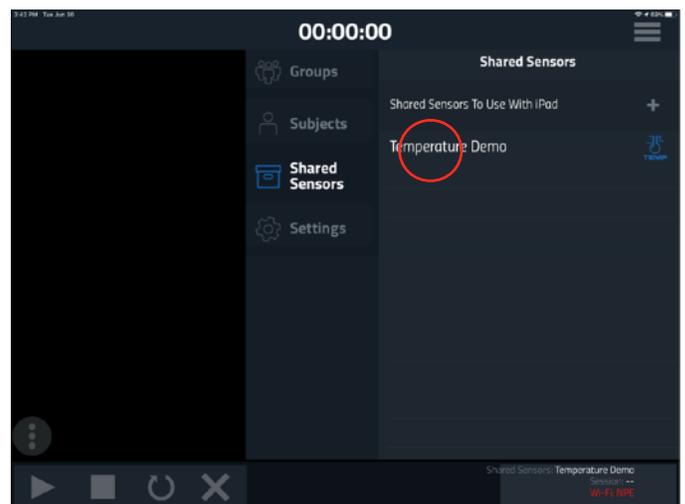
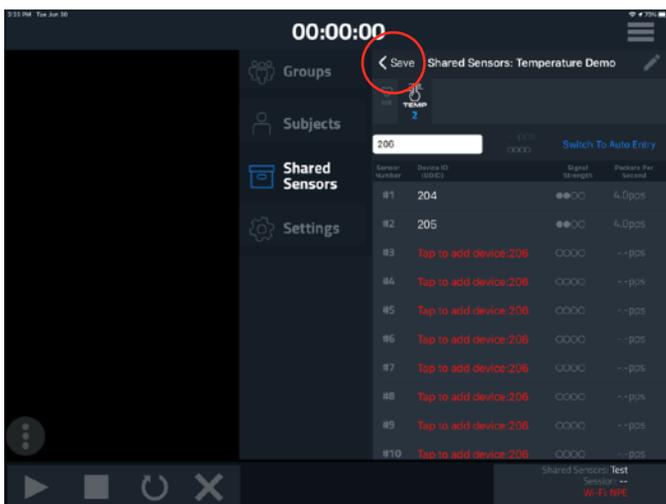
With the UDID enter, select the sensor number to associate with this ANT+. In this example sensor #1 is selected.



The remaining sensors can be assigned either using the manual process or they can be assigned automatically by simply tapping the next sensor # in the list. In this case 205 is assigned to sensor #2.

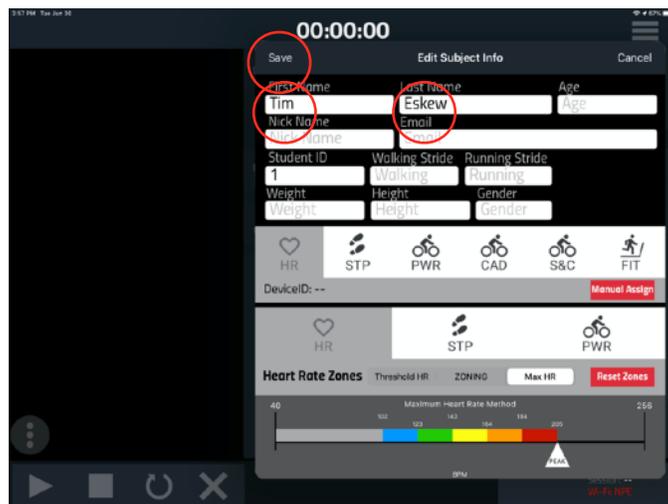
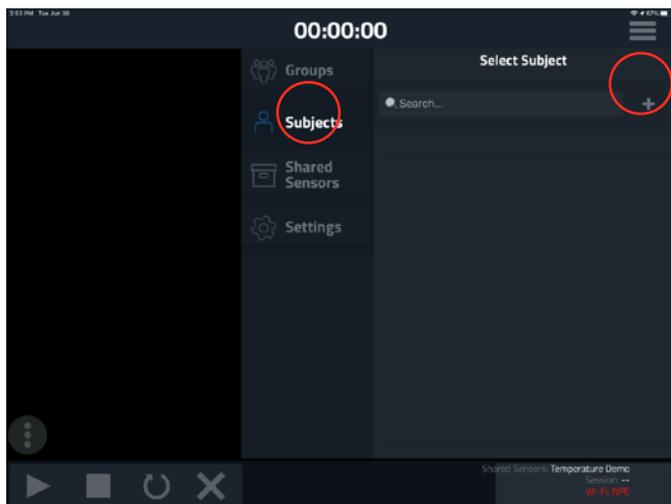


With the environmental sensors assigned to the sensor numbers in the shared sensor list. Select **save** to save the shared sensor list that was created. The shared sensor list will now appear in the Shared sensors Menu.

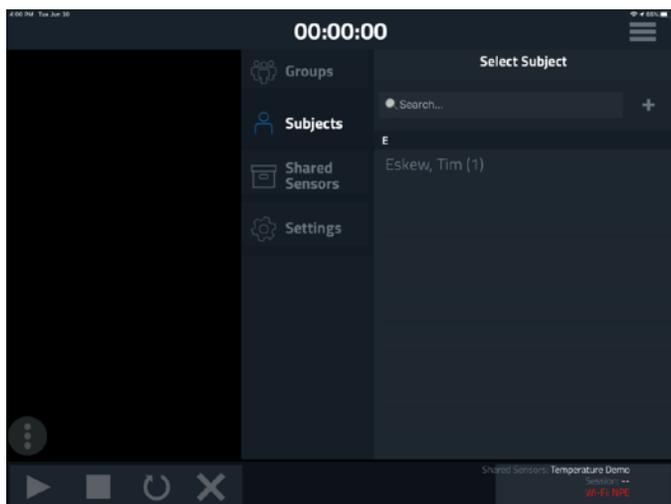


## SUBJECT SETUP

The next configuring the system is adding individual **subjects** that will be associated with the sensors. Subjects are typically people but could be other objects such as refrigerators. To add a new subject select the **+**.

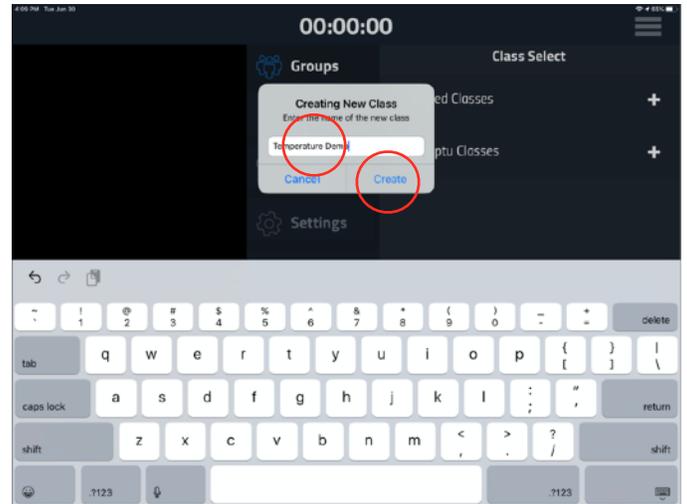
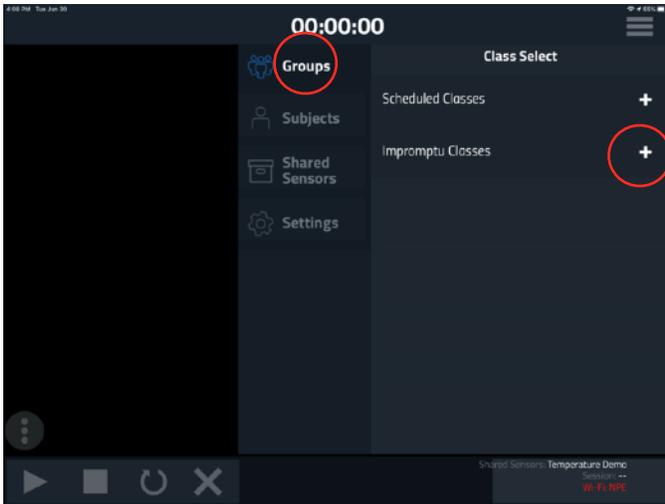


A data entry screen will pop-up. For this demo we have entered in **Tim Eskew** for this subject's name. Other details can be included in the subject record, but for this demo only the first and last name are entered. Once the subject record is complete select **save**. The subject's record is now visible in the system. Other subjects can be added in the same manner.

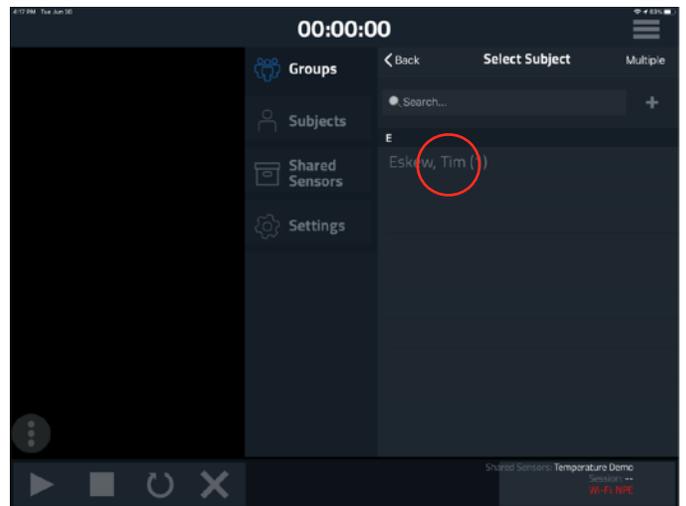
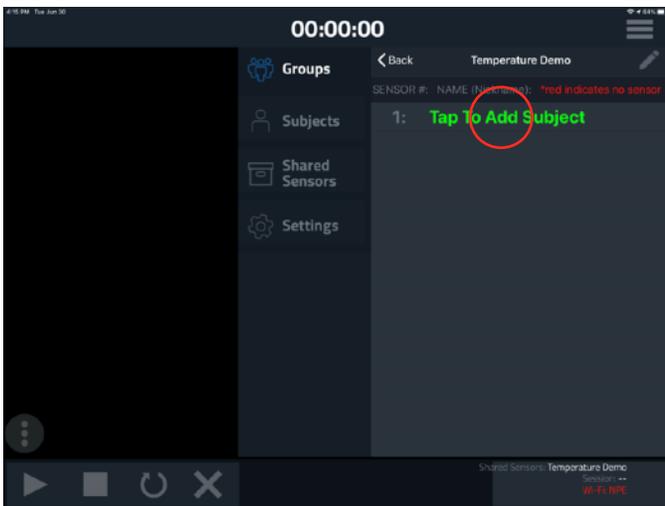


## GROUP SETUP

Once the subjects and shared sensor set have been created, a group monitoring session can now be created. Select groups from menu. For this example, an impromptu monitoring class will be set up. Select the + next to the Impromptu Classes and enter a name for this example we are using **Temperature Demo** and select create.

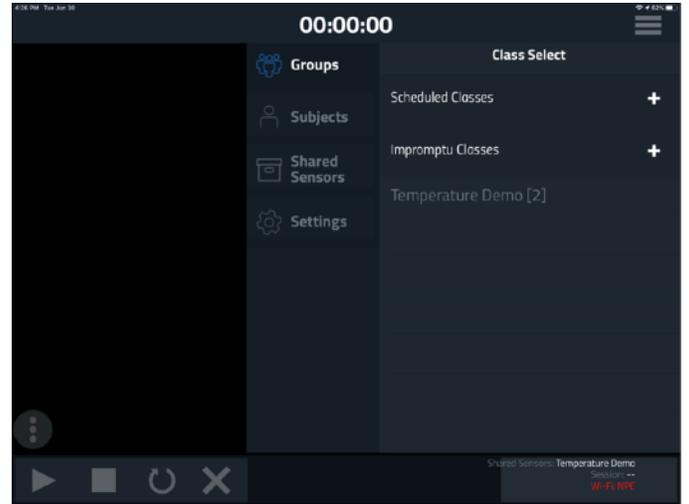
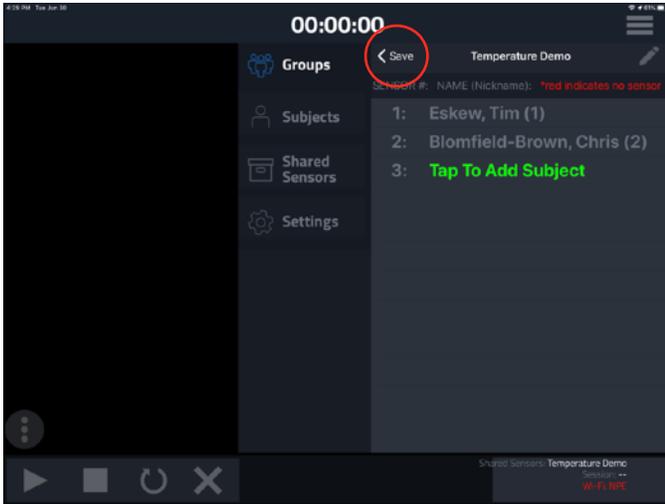


With the Impromptu Temperature Demo class created, subjects can be assigned to sensors from the shared sensor set created earlier. To add a subject tap **Add Subject**. The subjects list is now shown. You can search for the name of a particular subject or scroll through the list. **Note, the subject will be assigned the first sensor number in the shared sensor list. It is important here to ensure that sensor associated with shared sensor # is assigned to correct subject so that data from the sensor is attributed to the correct subject.**



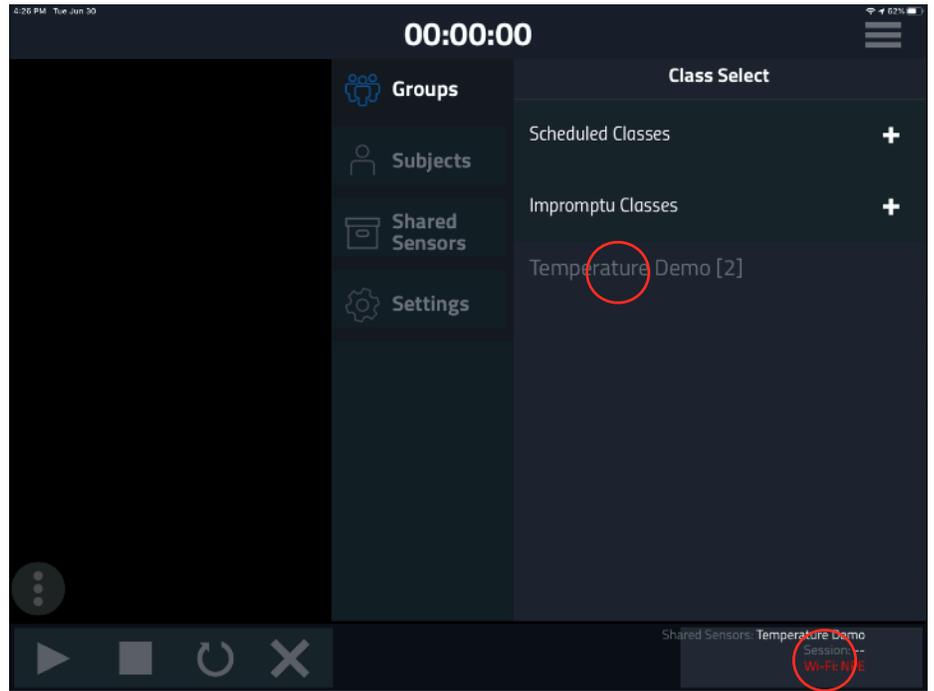
**Tim Eskew** is selected for shared sensor #1. The process of associating subjects can be repeated for other shared sensors and subjects until all subjects are assigned a shared sensor.

Once all subjects are assigned, select Save to save the Impromptu temperature monitoring class.

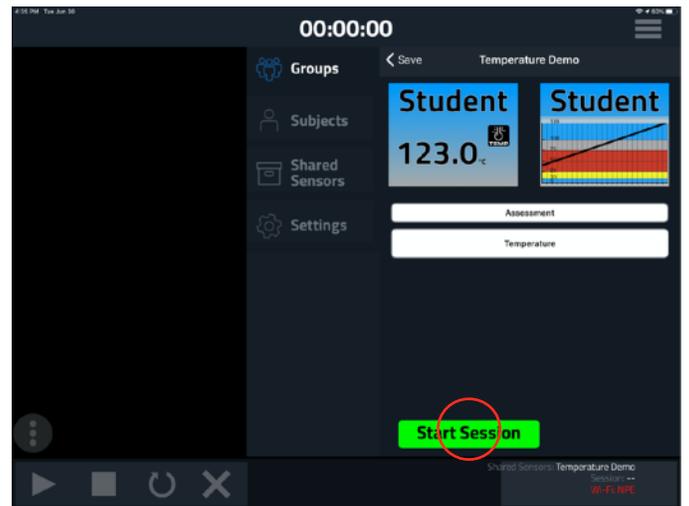
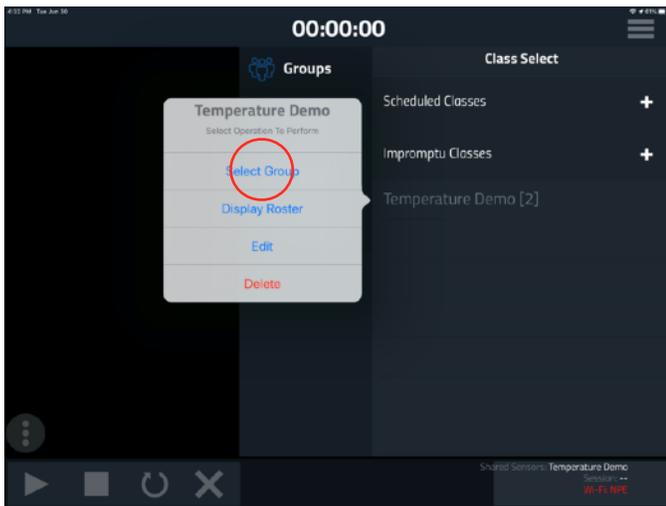


# TEMPERATURE MONITORING SESSION

With subjects assigned to the shared sensor pool, a monitoring session can be commenced. Ensure iPad is on the same network as your WASP. Select the Impromptu class that was created, in our case Temperature Demo.

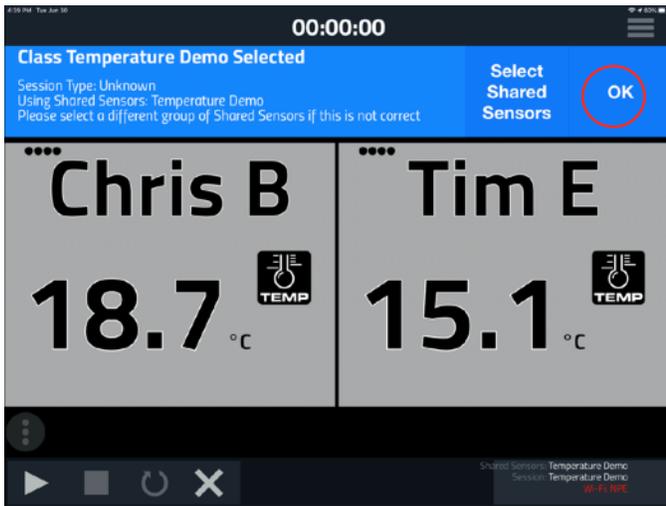


In the dialog that appears choose **Select Group**. To start the temperature monitoring session. Select **Start Session**.



## TEMPERATURE MONITORING DISPLAY

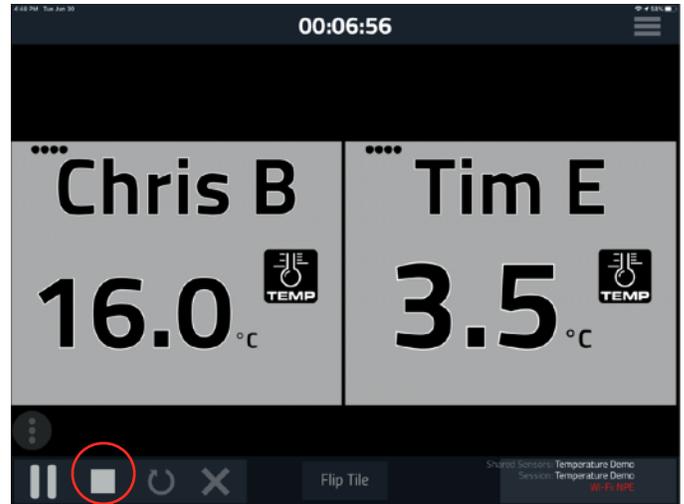
With the temperature monitoring session started, the Temperature Monitor app will display real time temperature readings from the shared sensor associated with each subject. The banner displaying information can be removed from the display by selecting **OK**.



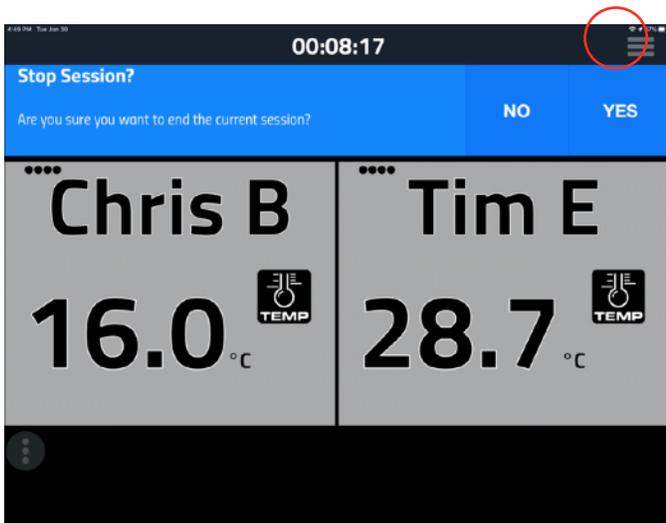
To show a temperature graph over time for a subject(s), tap the subject's tile. The display will switch to a line graph of the temperature data.



To stop the data recording session, select stop the **menu** at the bottom left of the app and tap **stop**.



Select **Yes**, to confirm you wish to stop this temperature recording session.



# CONTACT INFORMATION

For assistance using this application, please visit our support site at <http://npe-inc.zendesk.com>

To create a support ticket, please go to: <https://npe-inc.zendesk.com/hc/en-us/requests/new>