

Manual for running wiced sense

e-Yantra Team

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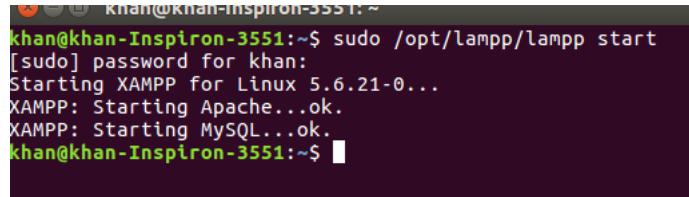
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1 How to use wiced sense GUI ?

1.1 Sensor Data display Page

- Open terminal and start lampp local server.



```
khan@khan-Inspiron-3551:~$ sudo /opt/lampp/lampp start
[sudo] password for khan:
Starting XAMPP for Linux 5.6.21-0...
XAMPP: Starting Apache...ok.
XAMPP: Starting MySQL...ok.
khan@khan-Inspiron-3551:~$
```

Figure 1: Starting local server

- Open sensors.html page in website.
- Connect XBee using a XBee to usb adapter to a local machine.

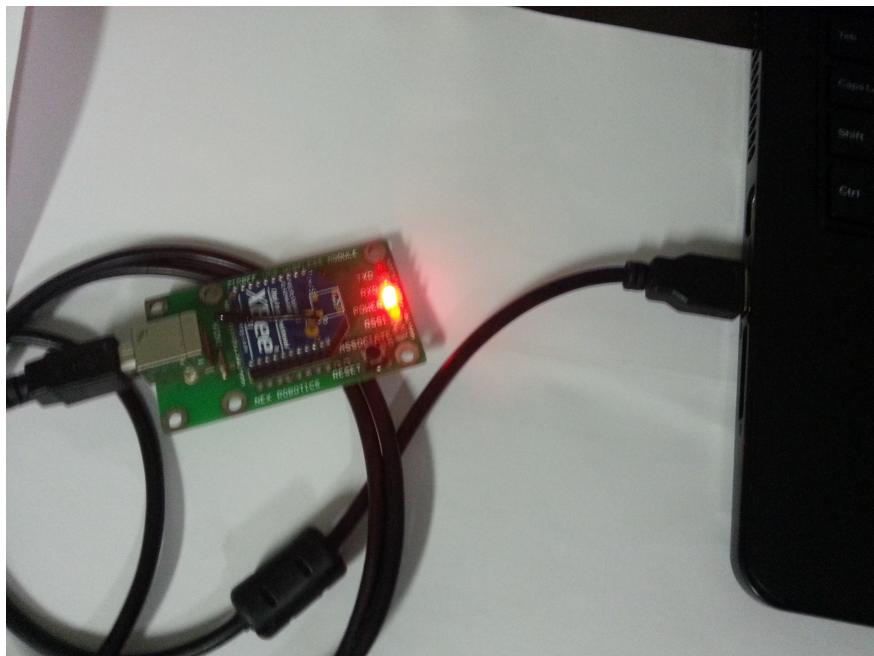
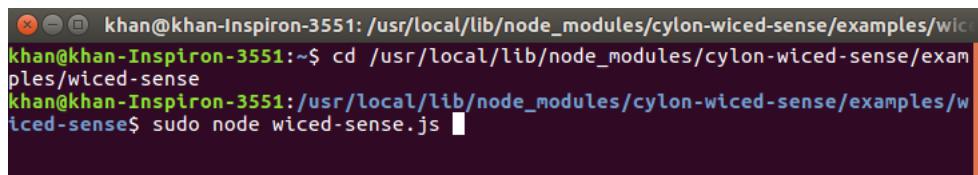


Figure 2: Connecting Xbee to local machine

- Turn ON bluetooth and run wiced.js file in terminal



```
khan@khan-Inspiron-3551:~/usr/local/lib/node_modules/cylon-wiced-sense/examples/wiced-sense$ cd /usr/local/lib/node_modules/cylon-wiced-sense/examples/wiced-sense
khan@khan-Inspiron-3551:/usr/local/lib/node_modules/cylon-wiced-sense/examples/wiced-sense$ sudo node wiced-sense.js
```

Figure 3: Running Wiced.js

- As data arrives on terminal the data will be displayed on the page.

- Compass and acceleration reading will be displayed immediately according to the sensor data. But data of humidity, temperature, pressure are displayed after some delay of 2-3 sec.

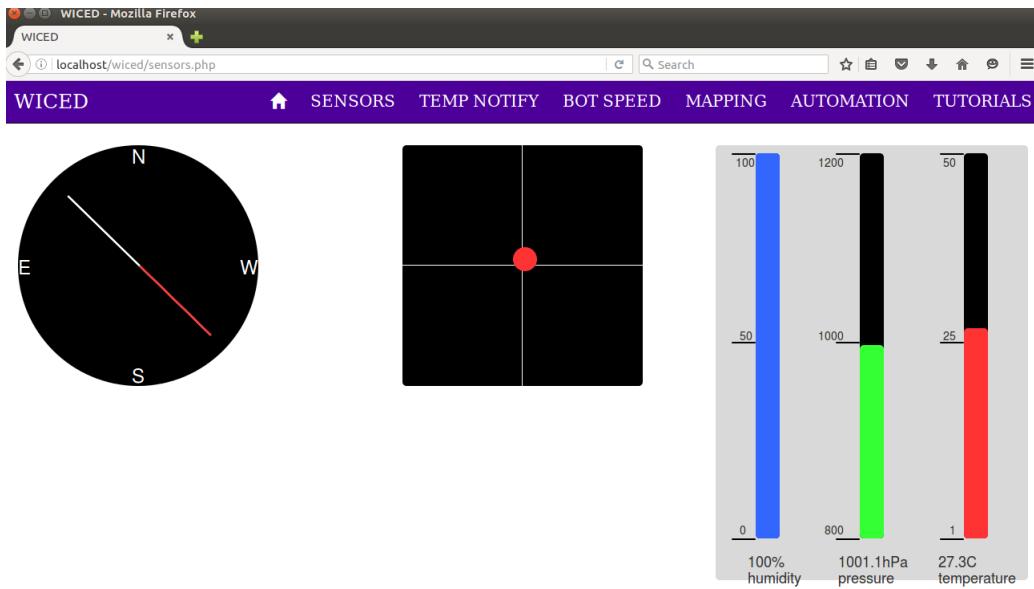
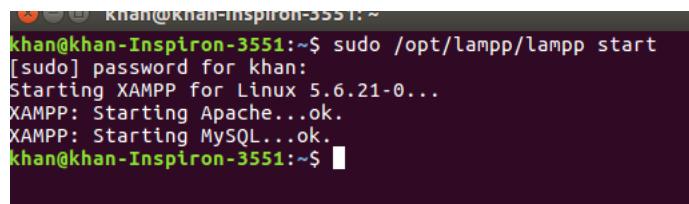


Figure 4: Sensors GUI

1.2 How to use temperature notifier ?

- Open terminal and start lampp local server.



```
khan@khan-Inspiron-3551:~$ sudo /opt/lampp/lampp start
[sudo] password for khan:
Starting XAMPP for Linux 5.6.21-0...
XAMPP: Starting Apache...ok.
XAMPP: Starting MySQL...ok.
khan@khan-Inspiron-3551:~$
```

Figure 5: Starting local server

- Open temp.html page in website.
- Connect XBee using a XBee to usb adapter to a local machine.

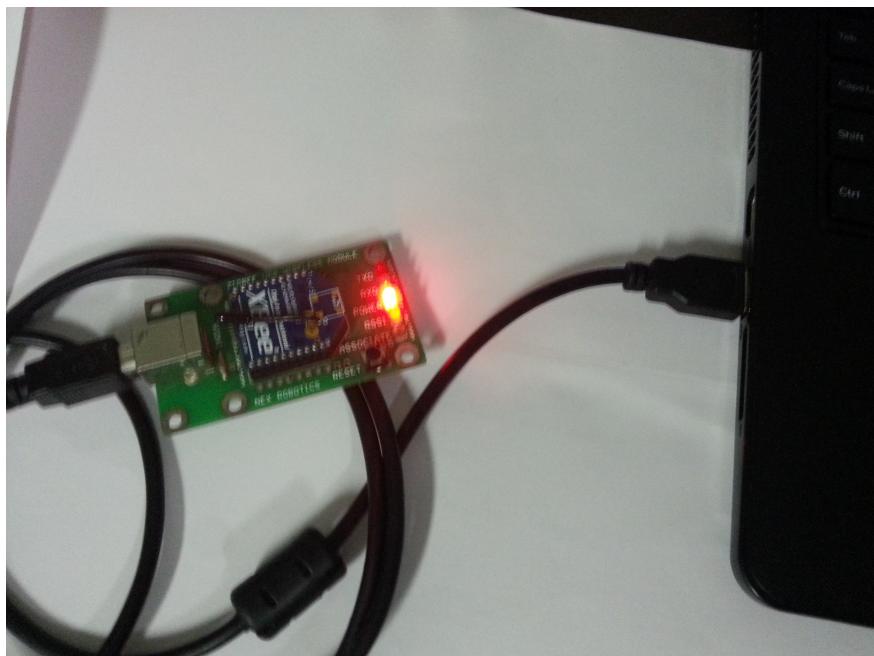
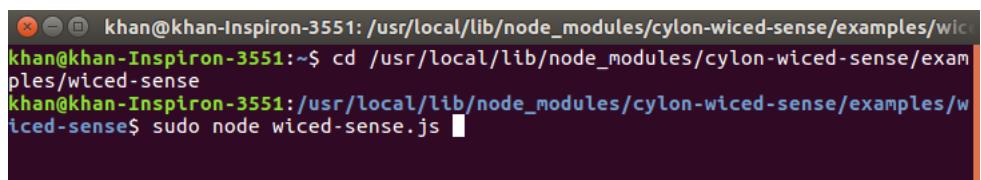


Figure 6: Connecting Xbee to local machine

- Turn ON bluetooth and run wiced.js file in terminal



```
khan@khan-Inspiron-3551:~/usr/local/lib/node_modules/cylon-wiced-sense/examples/wiced-sense$ cd ~/usr/local/lib/node_modules/cylon-wiced-sense/examples/wiced-sense
khan@khan-Inspiron-3551:~/usr/local/lib/node_modules/cylon-wiced-sense/examples/wiced-sense$ sudo node wiced-sense.js
```

Figure 7: Running Wiced.js

- Set temperature of which you need to be notified.

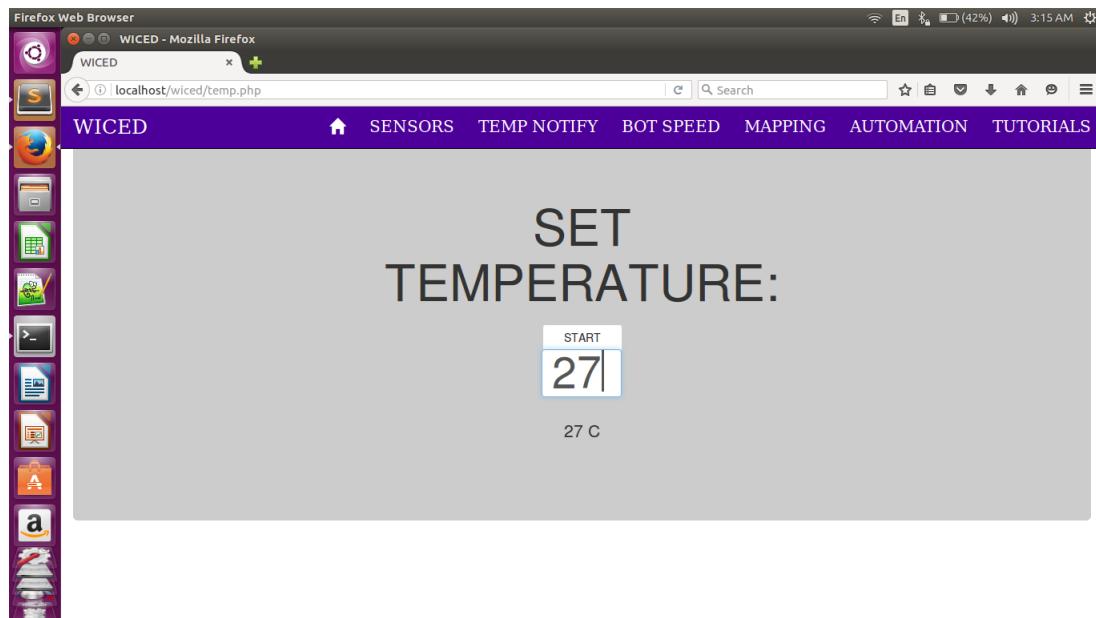


Figure 8: Temperature Notify GUI

- Selected temperature will be displayed immediately at the bottom of form.
- As the atmospheric temperature exceeds above set temperature , then a popup alert will appear to notify the user.

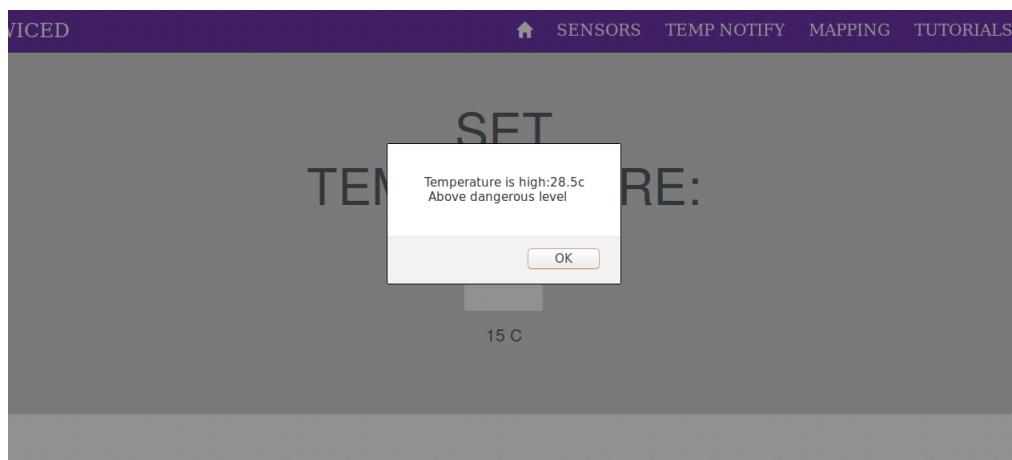
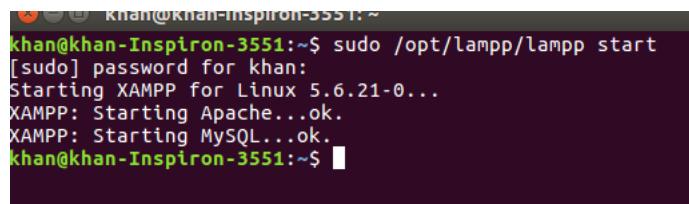


Figure 9: Popup Alert

1.3 How to map the path of robot ?

- Open terminal and start lampp local server.



```
khan@khan-Inspiron-3551:~$ sudo /opt/lampp/lampp start
[sudo] password for khan:
Starting XAMPP for Linux 5.6.21-0...
XAMPP: Starting Apache...ok.
XAMPP: Starting MySQL...ok.
khan@khan-Inspiron-3551:~$
```

Figure 10: Starting Local Server

- Open Open mapping.html page in website.
- Connect XBee using a XBee to usb adapter to a local machine.

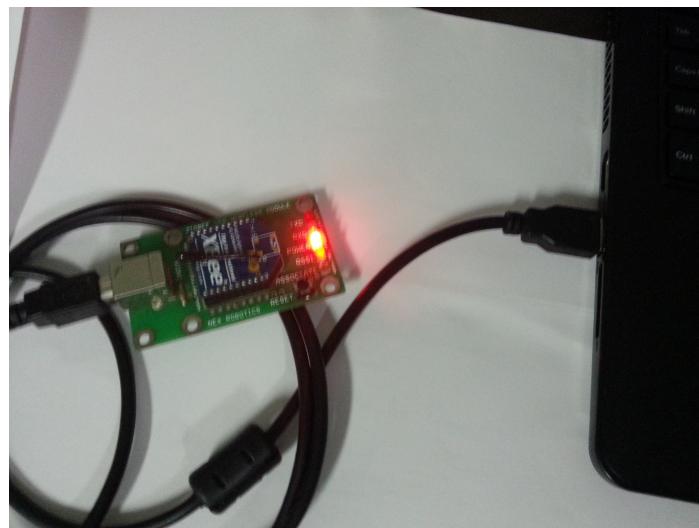


Figure 11: Connecting Xbee to local machine

- Place wiced sense on robot where key chain part of wiced must be facing forward .
- Turn ON system bluetooth and keep the bot at the start position of the path or area to be mapped.



Figure 12: Mounting wiced on firebird V

- Turn on the wiced sense by pressing the wake up button.
- Do not move the robot after placing at start position.
- Run wiced-sense.js file and wait for data to arrive.
- As the data arrives on terminal, immediately refresh mapping.html page.

```

khan@khan-Inspiron-3551:~$ cd /usr/local/lib/node_modules/cylon-wiced-sense/examples/wiced-sense
khan@khan-Inspiron-3551:/usr/local/lib/node_modules/cylon-wiced-sense/examples/wiced-sense$ sudo node wiced-sense.js
[sudo] password for khan:
DEPRECATION: Please use `require('serialport')` instead of `require('serialport').SerialPort`
2016-07-22T07:46:56.358Z : [Robot 1] - Starting connections.
2016-07-22T07:46:56.361Z : [Robot 1] - Starting connection 'bluetooth'.
2016-07-22T07:47:01.962Z : [Robot 1] - Starting devices.
2016-07-22T07:47:01.963Z : [Robot 1] - Starting device 'battery'.
2016-07-22T07:47:01.964Z : [Robot 1] - Starting device 'deviceInfo'.
2016-07-22T07:47:01.964Z : [Robot 1] - Starting device 'generic'.
2016-07-22T07:47:01.964Z : [Robot 1] - Starting device 'wiced'.
2016-07-22T07:47:01.965Z : [Robot 1] - Working.
acc_x=0&acc_y=5&acc_z=84&gyr_x=-142&gyr_y=35&gyr_z=66&mag_x=677&mag_y=113&mag_z=-1095&hum=&pre=&temp=&EncoderL=0&EncoderR=0
acc_x=0&acc_y=5&acc_z=83&gyr_x=-138&gyr_y=46&gyr_z=72&mag_x=683&mag_y=108&mag_z=-1085&hum=&pre=&temp=&EncoderL=0&EncoderR=0
acc_x=0&acc_y=5&acc_z=83&gyr_x=-120&gyr_y=-3&gyr_z=-28&mag_x=677&mag_y=113&mag_z=-1089&hum=&pre=&temp=&EncoderL=0&EncoderR=0
acc_x=0&acc_y=5&acc_z=83&gyr_x=-116&gyr_y=83&gyr_z=29&mag_x=691&mag_y=114&mag_z=-1082&hum=&pre=&temp=&EncoderL=0&EncoderR=0
acc_x=0&acc_y=4&acc_z=83&gyr_x=-155&gyr_y=41&gyr_z=538&mag_x=672&mag_y=124&mag_z=-1088&hum=&pre=&temp=&EncoderL=0&EncoderR=0

```

Figure 13: Output on terminal

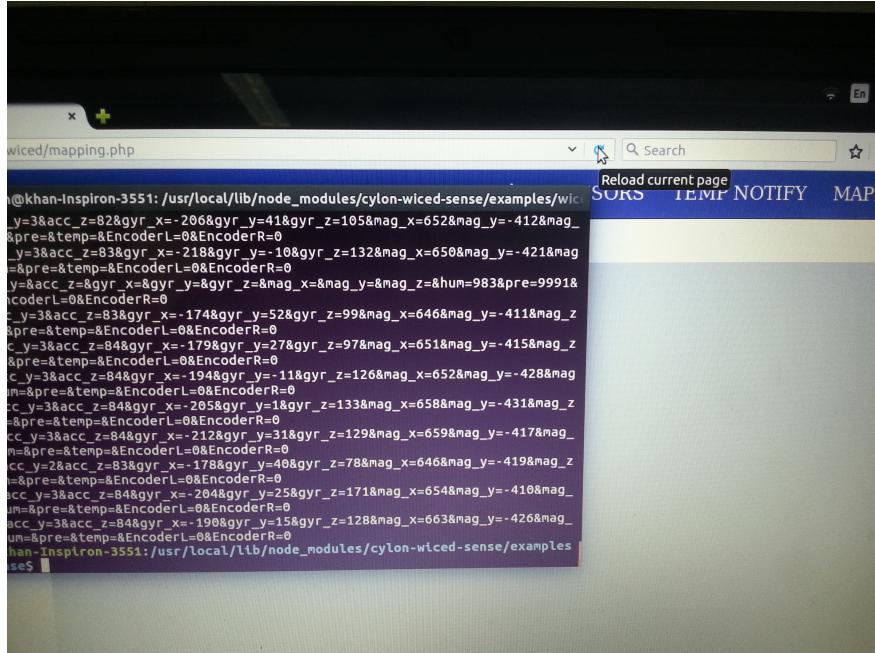


Figure 14: Refreshing the webpage

- Turn on robot to move forward. As the robot moves , path is mapped accordingly in the mapping.html page.
- After mapping is done, inorder to terminate the process enter Cltr+C in terminal. Hence process will be terminated