

User Manual

ThermalSense Hub

Brand: PROSPACE

Model: Hub 4.0TS BLE

Mmanufacturer	PROSPACE PTE. LTD.
Address	113 Bishan Street 12, #09-116 Bishan View Singapore (570113)

BLE Hubs



Thermalsense front

Thermalsense act as a receiver for the BLE sensors signal to send `1` and `0` data to the cloud.



Thermalsense back

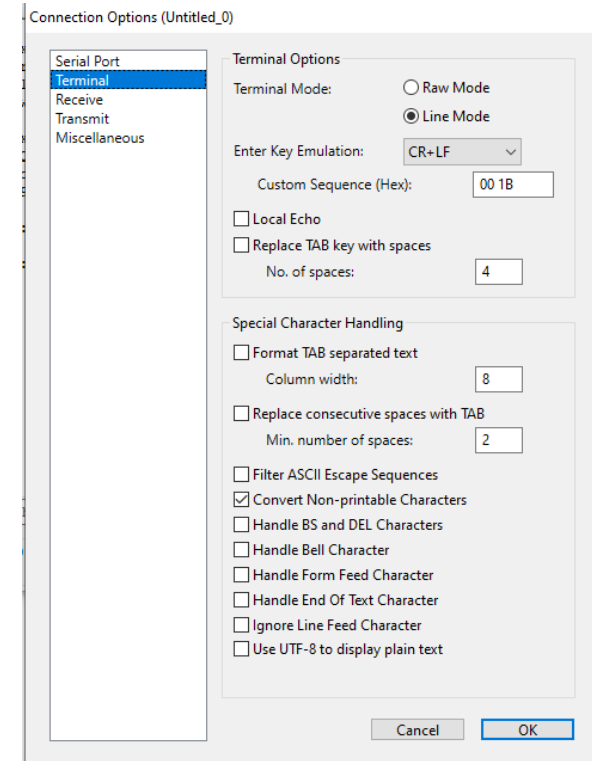
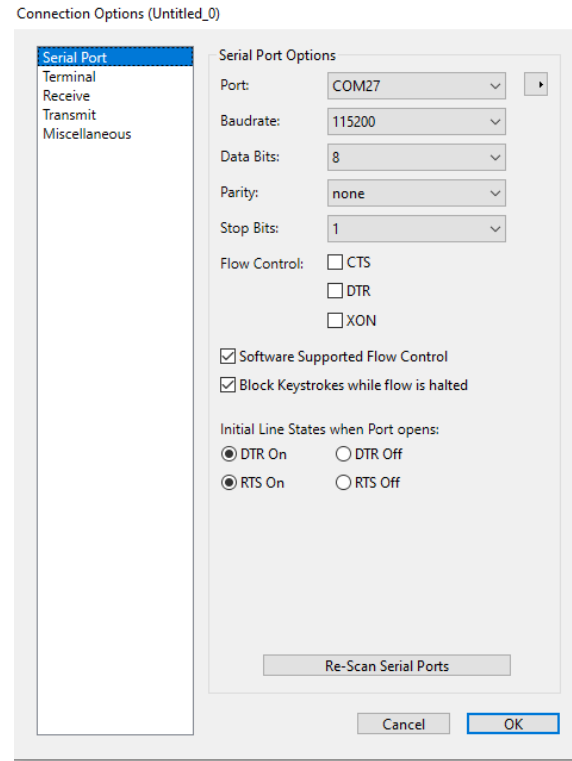
The Thermalsense can be put on the table or attached to the ceiling as show in picture 1.



Picture 1

How to connect the BLE Hubs

1. Use a micro USB to connect the back of the hub and connect the USB to laptop
2. Open Coolterm Software
3. Click option
4. Click on Re-Scan Serial Port
5. Ensure BaudRate is 115200
6. Ensure in Terminal Tab, Line mode is selected
7. After done, Click Ok and Connect



How to connect the BLE Hubs

1. Type in your network ssid
"ssid:XXXXXXXXXX"
2. Press enter
3. Type in your network password
4. "password:12345678"
5. Press enter
6. Type in Commit
7. Once connected you will see Picture 2
8. Under BLE line: you will see the BLE sensor ID appear inside when you connect the BLE chipset to the equipment.(Picture 3)
9. This mean the receiver have received the BLE signal from the sensor

```
Modem Hard Reset
Do you want to enter new WiFi profile and Setting?
Please key in ssid, password, or commands. Thereafter type "commit" and press "Enter" to connect to this Wifi Profile and Setting.
reconnect attempt: 0

Connecting to existing WiFi profile: SSID: [ keyinssid | xxxxxx ]
reconnect attempt: 1

Connecting to existing WiFi profile: SSID: [ keyinssid | xxxxxx ]
NTP Time Force Update
reconnect attempt: 1

Connecting to existing WiFi profile: SSID: [ keyinssid | xxxxxx ]
MLX sensor get raw data
reconnect attempt: 2

Connecting to existing WiFi profile: SSID: [ keyinssid | xxxxxx ]
NTP Time Force Update
reconnect attempt: 2

Connecting to existing WiFi profile: SSID: [ keyinssid | xxxxxx ]
Motion detected!
reconnect attempt: 3

Connecting to existing WiFi profile: SSID: [ keyinssid | xxxxxx ]
NTP Time Force Update
reconnect attempt: 3

Connecting to existing WiFi profile: SSID: [ keyinssid | xxxxxx ]
MLX sensor get raw data
environment sensor get data
current room temperature: 26.97
auto mode on minTemp: 27.27
MLX sensor get process data
reconnect attempt: 4

Connecting to existing WiFi profile: SSID: [ keyinssid | xxxxxx ]
NTP Time Force Update
reconnect attempt: 4

Connecting to existing WiFi profile: SSID: [ keyinssid | xxxxxx ]
reconnect attempt: 5

Connecting to existing WiFi profile: SSID: [ keyinssid | xxxxxx ]
```



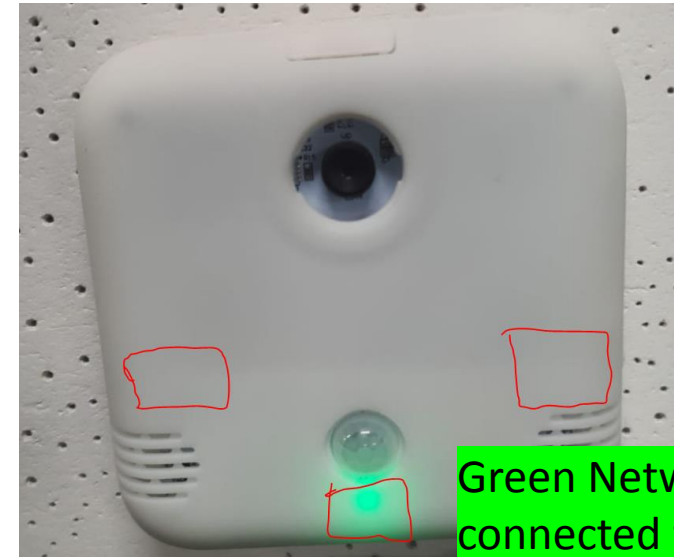
Picture 3

Picture 2

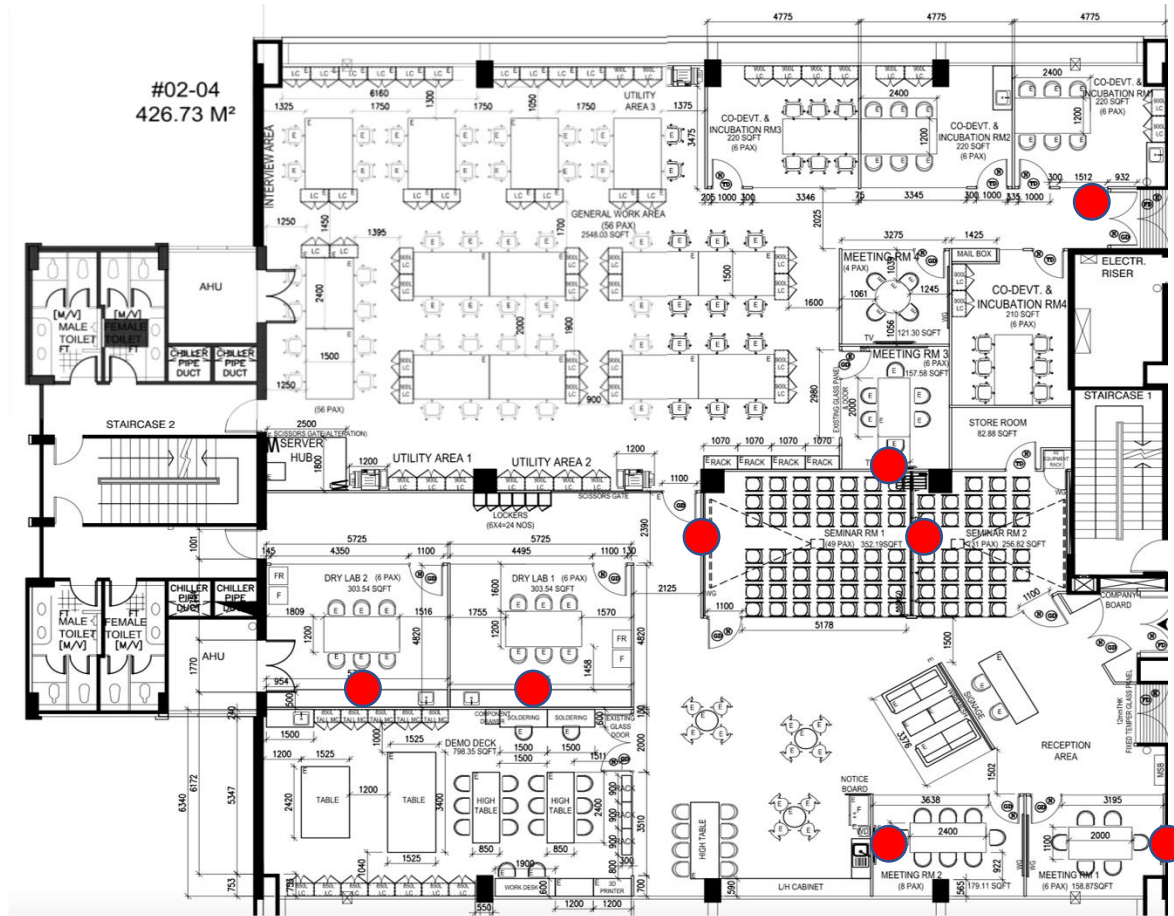
```
Connecting to existing WiFi profile: SSID: [ keyinssid | xxxxxx ]
MLX sensor get raw data
reconnect attempt: 49

Connecting to existing WiFi profile: SSID: [ keyinssid | xxxxxx ]
NTP Time Force Update
Connecting to MQTT...
WiFi MQTT connected ←
syncTime:1617248077

MLX sensor get raw data
environment sensor get data
current room temperature: 26.85
auto mode on minTemp: 27.15
MLX sensor get process data
mlx_processed_data: [{"people":18,"timestamp":1617248078,"coordinates":[[2,13,18]],"mac_address":"84:0D:8E:D0:AA:BC"}]
environment data: [{"temperature": 26.85, "humidity": 49.57, "co2": 400, "voc": 0, "mac_address": "84:0D:8E:D0:AA:BC"}]
BLEsensordata: [84:0D:8E:D0:AA:BC]
```



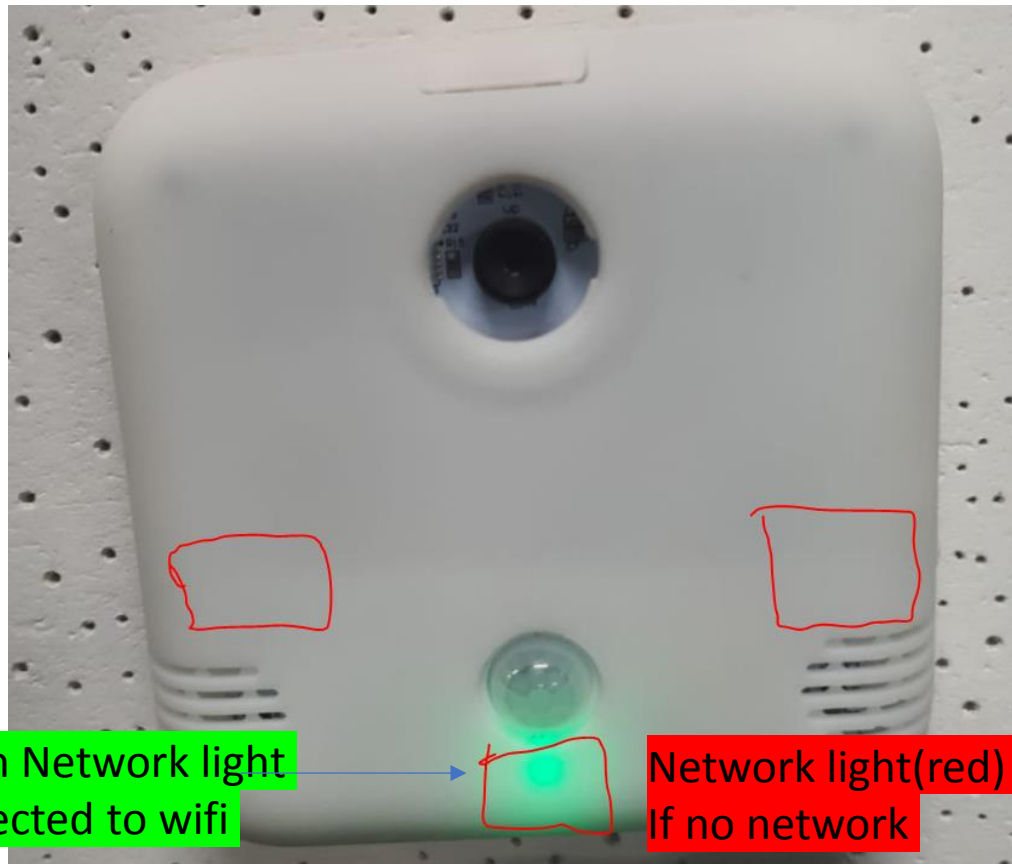
Green Network light connected to wifi



The common place to deploy hubs are usually behind tv, under table, in Cabinet, above false ceiling

It is preferred to have the buffer hubs place in an area.

The picture above show the propose hub location(Red dots)



Green Network light
connected to wifi

Network light(red)
If no network

After deploying all BLE hubs and recording them. Remember to ensure the hub have no red light

Do contact back ProSpace if you need any help.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Warning Statements:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment shall be installed and operated with minimum distance 20cm between the radiator & body.