

KOSMOS

Starter Kit Setup Guide

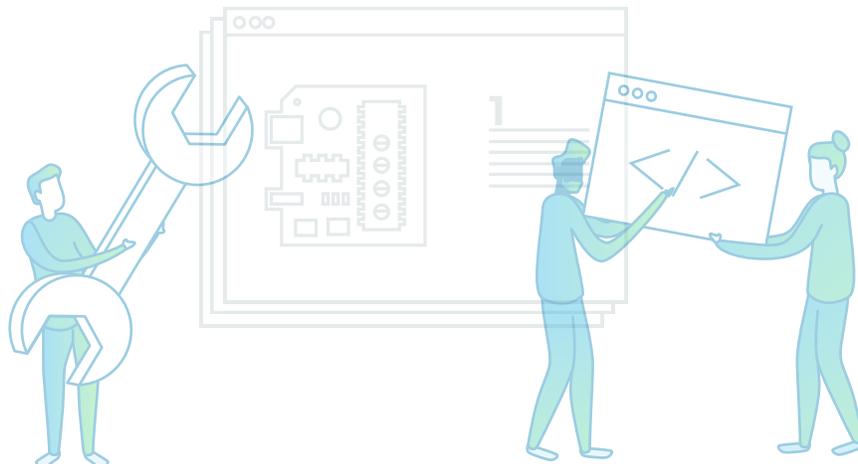
What will this guide teach me?

 15 minutes

This guide contains step-by-step instructions on how to set up your Kosmos Industrial IoT Starter Kit.

Once you've finished these steps, you'll be ready to start gaining valuable insights from your sensor data using Kosmos' dashboards, alerts, and more.

For questions about setting up your Kosmos IoT System, please email support@temboo.com and we'll get back to you as soon as possible.



What's in the box?



Kosmos Gateway
(Raspberry Pi Model 3 B+)



NCD Industrial
Wireless Sensor



NCD Wireless
Modem



Raspberry Pi 5V 2.5A
Power Adapter



Ethernet Cable



NCD 12V 3A
Power Adapter



Micro SD Card
(8+GB, US 3)



USB Micro SD
Card Reader



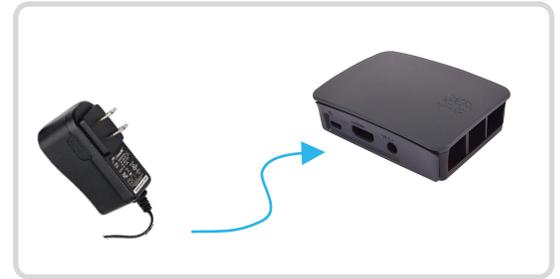
USB Flash Drive

Kosmos Gateway Hardware Setup

1

Power Up The Gateway

Connect the power adapter to your Kosmos gateway. Then, plug the adapter into a power outlet.



2

Connect Ethernet Cable

Use the ethernet cable to connect your Kosmos gateway to an ethernet outlet.

See page 6 if you want to use WiFi to connect your gateway to the internet.



3

Connect NCD Modem

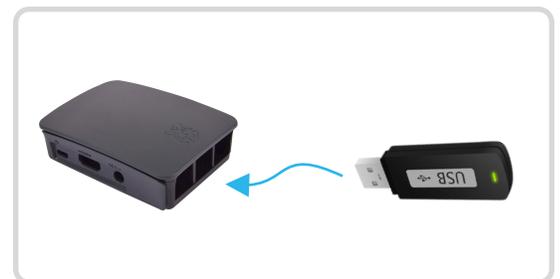
Connect the NCD modem to your gateway via the USB cable provided.



4

Insert USB Drive

Insert the USB thumb drive into any available USB port on your Kosmos gateway.



Power On Your NCD sensor

5

Attach the antenna to your NCD sensor. Next, decide how you want to power your NCD sensor.

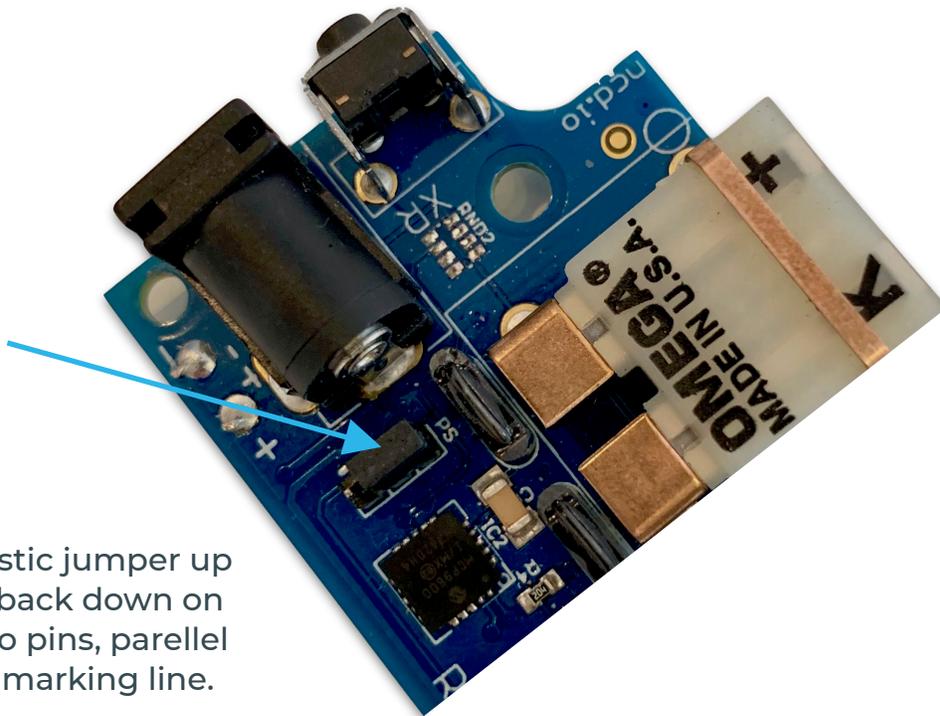


Wired power: connect the NCD power adapter (12V 3A) to the sensor and plug it into a power outlet. The sensor will automatically start sending data to your Kosmos gateway.



Battery power: open the sensor's enclosure and set the PS (power select) jumper parallel to the marking line on the board.

The power select (PS) jumper on your NCD sensor.



Slide the plastic jumper up and place it back down on the outer two pins, parallel to the white marking line.

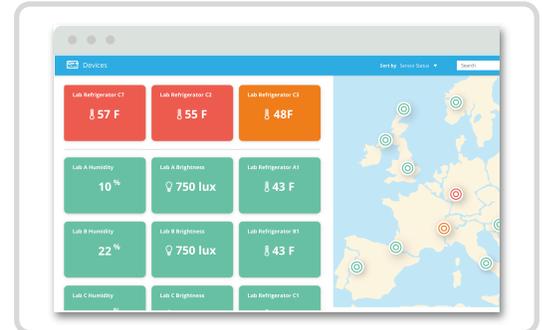
View Your Kosmos Sensor Data

6

Visit your Dashboard

Log into your Kosmos account and navigate to the dashboard:

<https://temboo.com/devices>



7

Monitor Gateway Status

When the gateway connects, a green dot will appear beside the name of your Kosmos application. The gateway takes ~90 seconds to connect.

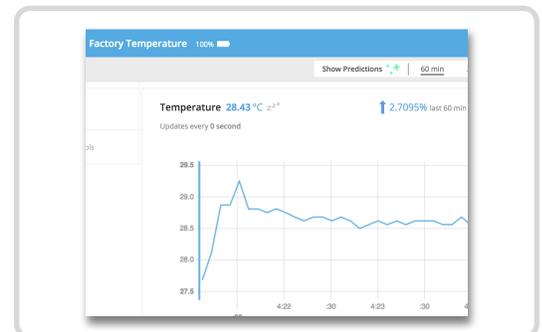


8

View Sensor Data

Click into your application and then click on your sensor. You should see the first data point in your graph.

Note: You can press the reset button on your NCD sensor to force another sensor reading to appear in the graph. Make sure to refresh the graph in your dashboard after pressing reset.



Connect Your Gateway Via WiFi (Optional)



We recommend using ethernet to connect your gateway to the Kosmos web dashboard.

- ✓ Fastest setup time
- ✓ Most reliable connection



To use WiFi to connect your starter kit gateway to the internet, first remove the USB thumb drive from your gateway and plug it into your computer.



Locate the **temboo_kosmos_config.ini** file on the USB thumb drive and open it with your favorite text editor.



Add the details of the WiFi network that you want to your gateway to connect to (see lines 14 & 15 in the screenshot below), and then save your config file.



Eject the USB drive from your computer and insert it back into your Kosmos gateway. Remove the gateway's power supply and reconnect it. Your Kosmos gateway will power back up and connect via WiFi.

```
kosmos_gateway_config.ini
1 [credentials]
2 account_name = my-kosmos-account
3 appkey_name = myIndustrialIoTApp
4 appkey_value = WBnnvr12Mu5tlw123uZwaF12vpF1EZj
5
6 [cloud_connection]
7 gateway_id = my_gateway
8 auth_type = standard
9 port = 9009
10 websocket_version = 1
11 ws_url = wss://kosmos.temboo.com
12
13 [wifi]
14 ssid = myWifiNetwork
15 password = my-wifi-password
```

⚠ Troubleshooting Tips

Problem	Solution
Gateway isn't powering up.	When your gateway is powered on you'll see a red LED (solid) and green LED (blinking) inside the case. If you don't see those lights, check that the power supply is securely attached at both ends, and that the wall outlet you are using is active.
Your gateway doesn't appear online in your Kosmos dashboard.	Make sure that you've waited at least 10 minutes after powering on your gateway and that all the hardware is connected as described in this guide. If the gateway is still offline after 10 minutes, try restarting the gateway to connect to Kosmos.
Your graphs have no data.	Wait at least 10 minutes after powering up your gateway for data to arrive in your graphs. If you still don't see data, double-check that the power supply for your sensors (adapter or batteries) is working correctly. Press the reset button on the sensor and refresh the browser in which you are viewing the sensor graph.

Questions?
support@temboo.com

