



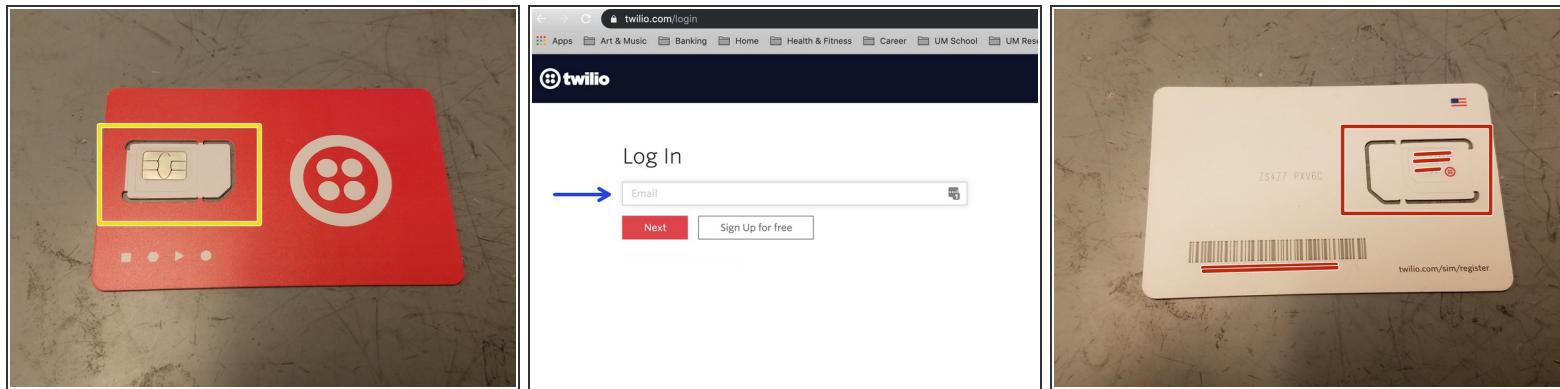
SIM Card Activation with Twilio

Follow these steps to activate a cell modem for the Open-Storm board.

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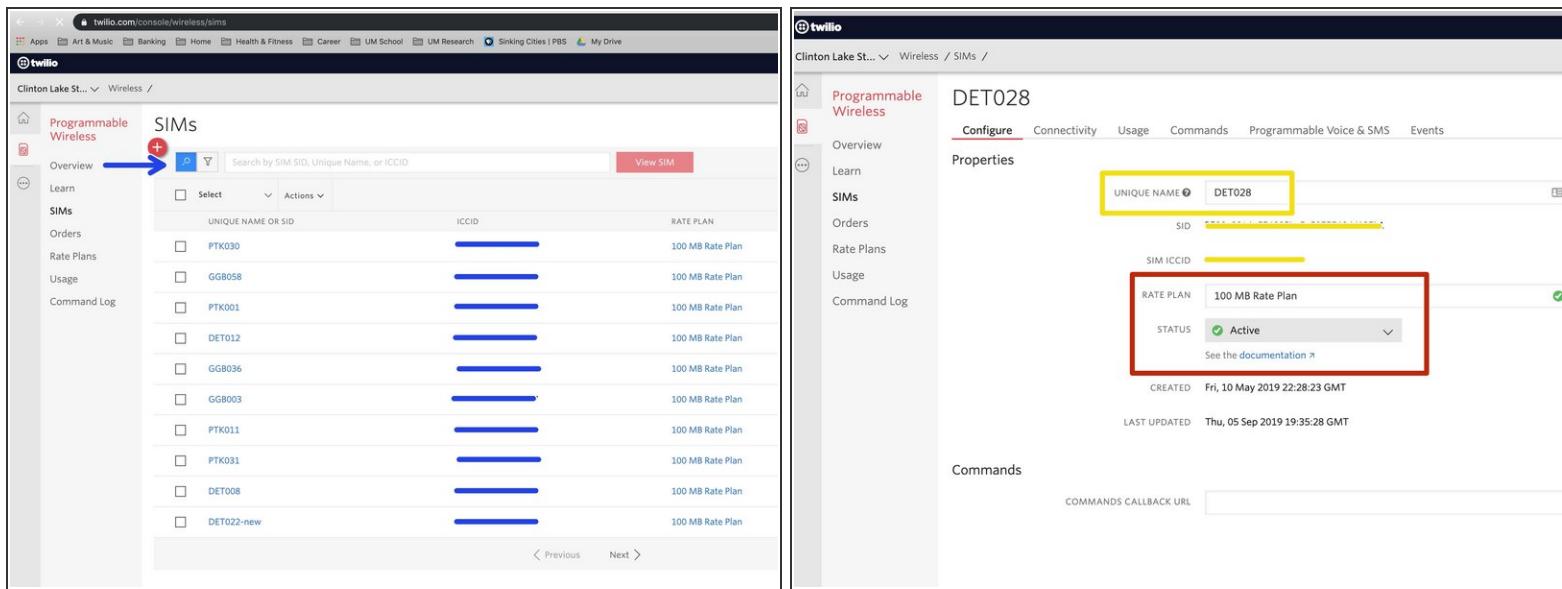
Step 1 — Obtain SIM card



- Obtain a Twilio SIM card.
- Log into <http://twilio.com/console> using the lab login.
- Locate the SIM card number on the back of the card.

ⓘ SIM card number blocked out for security purposes.

Step 2 — Update Twilio account



The image consists of two side-by-side screenshots of the Twilio console. The left screenshot shows the 'SIMs' list page. The right screenshot shows the 'Properties' page for a specific SIM card named 'DET028'. The 'RATE PLAN' and 'STATUS' fields on the right are highlighted with red boxes.

- Search for the SIM card number in the Twilio account (Programmable Wireless > SIMS > Search).
- Give the SIM card a unique name that is not already used (DETXXX, ARBXXX, etc.) depending on local airport cord.
- Assign it to a 100mb plan and change the status to active.

ⓘ SIM card number blocked out for security purposes.

Step 3 — Connect modem to the database

The image shows three panels. The left panel is a code editor with the file 'cellboard_post_credentials.py' open. The middle panel is an IPython console showing the execution of the script. The right panel is a database interface showing two tables: 'MEIDs' and 'Node database', both listing entries with 'meid' and 'last' columns.

```

cellboard_post_credentials.py
1 cellboard_post_credentials.py
2 # Update the r/w credentials on data.open-store.org (ie the _META database) for a given MEID
3 # This tells the code which db it should be polling/sending data to, as well as assigns
4 # the username and password needed to access the db
5
6 # import requests
7
8 # module info
9 # meid = 'DET028' # number on SD card for new boards, MEID on old boards
10 # node_id = 'DET028' # based on local airport code
11
12 host = 'data.open-store.org'
13 port = 1080
14
15 # module credentials
16 # Me: 'det' -> 'generic_node', 'MaxCloudCurrents': '100'
17 # Me: 'det' -> 'meta', 'VendorSerialDisplay': 'DET028'
18 meta_user, meta_pass, meta_db = 'meta', 'VendorSerialDisplay', '_META'
19 super_user, super_pass = 'meta_mtuor', 'OemUpdSyncConversion'
20
21
22 value_dict = {
23     'node_id': node_id,
24     'node_user': 'det',
25     'node_pass': 'det',
26     'node_db': '100'
27 }
28
29 # Construct defaultdict entries for node_id, node_user, node_pass, and node_db
30 data = "\n".join(["%s,%s,%s,%s" % (name,meid,value) for name,value in value_dict.items()])
31
32 post_header = {
33     'Host': host,
34     'Content-Type': 'application/x-www-form-urlencoded',
35     'Content-Length': str(len(data)),
36     'User-Agent': 'curl/7.29.0',
37     'Connection': 'keep-alive',
38     'Accept': 'text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8',
39     'Accept-Language': 'en-US,en;q=0.9',
40     'Accept-Encoding': 'gzip, deflate'
41 }
42
43 r = requests.post('http://%s/write?db=%s&key=%s' % (host, port, meta_db), headers = post_header, data = data)
44 print(r.status_code)
45
46 print(r.text)

```

IPython console output:

```

In [12]: runfile('/Users/HP/Documents/UM Research/Lab/cellboard_post_credentials.py', wdir='/Users/HP/Documents/UM Research/Lab')
204

In [13]: runfile('/Users/HP/Documents/UM Research/Lab/cellboard_post_credentials.py', wdir='/Users/HP/Documents/UM Research/Lab')
204

In [14]: runfile('/Users/HP/Documents/UM Research/Lab/cellboard_post_credentials.py', wdir='/Users/HP/Documents/UM Research/Lab')
204

In [15]: runfile('/Users/HP/Documents/UM Research/Lab/cellboard_post.py', wdir='/Users/HP/Documents/UM Research/Lab')
204

In [16]: runfile('/Users/HP/Documents/UM Research/Lab/cellboard_post.py', wdir='/Users/HP/Documents/UM Research/Lab')
204

```

Database Tables:

MEIDs		
Time	meid	last
2019-09-11 08:13:32	DET028	
2019-09-11 07:51:22	DET031	
2019-09-11 07:50:59	DET029	
2019-09-11 07:50:26		
2019-09-04 14:12:17	ARB000	
2019-08-14 14:23:47	GGB082	
	1	2
	3	

Node database		
Time	meid	last
2019-09-11 08:13:32	ARB	
2019-09-11 07:51:22	ARB	
2019-09-11 07:50:59	ARB	
2019-09-11 07:50:26	ARB	
2019-09-04 14:12:17	ARB	
2019-09-04 14:12:17	ARB	
	1	2
	3	

- Open the python code "cellboard_post_credentials.py" to connect the modem on the database.
- Put the SD card number for new boards and the MEID for the old boards in the "meid" section of the code.
- You will see 204 print each time you run the code in the IPython console if it correctly updated.
- Confirm the SIM ID has an associated node ID on the database.
- Now the cellular modem is ready to be connected to an Open-Storm board!

(i) SIM card number blocked out for security purposes.

To reassemble your device, follow these instructions in reverse order.