

Update Ikea zigbee devices from Deconz



Claus January 16, 2021 [Smart Home](#) [deconz](#), [firmware](#), [ikea](#), [pi](#), [raspberry pi](#)

I'm having a mix of different zigbee devices on my Deconz zigbee gateway. A downside with that config, is that your zigbee device doesn't get updated with new firmware. But you can actually update Ikea devices from deconz. Hue is not possible, as far as I know, because Hue is using encrypted firmware. I currently investigate if it is possible to update Lidl devices. But at this time I don't know if that is possible. **This guide is for you that have Deconz running on a Raspberry Pi.**

Let get started with the guide.

Some usefull links:

[Ikea firmware download](#)

[Ikea firmware release notes](#)

[Deconz Ikea download script](#)

Enable OTA

Start by enabling OTA updates. This is done in the "Wireless light control" web interface. NOT the normal Deconz web interface. The url is:

`http://DECONZ_IP/login.html`

Login:

User: delight

Password: YOUR DECONZ PASSWORD

Login

Wireless Light Control System

User

User

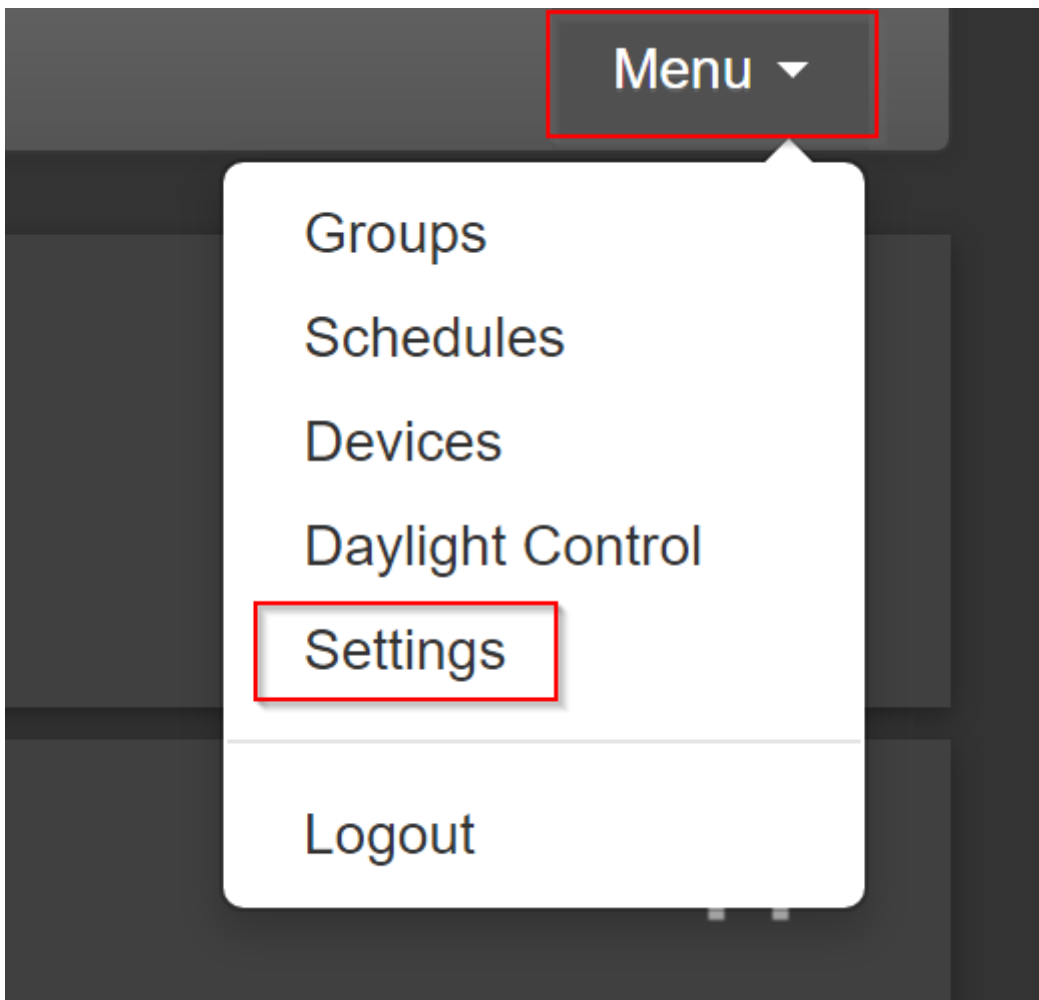
Password

Password

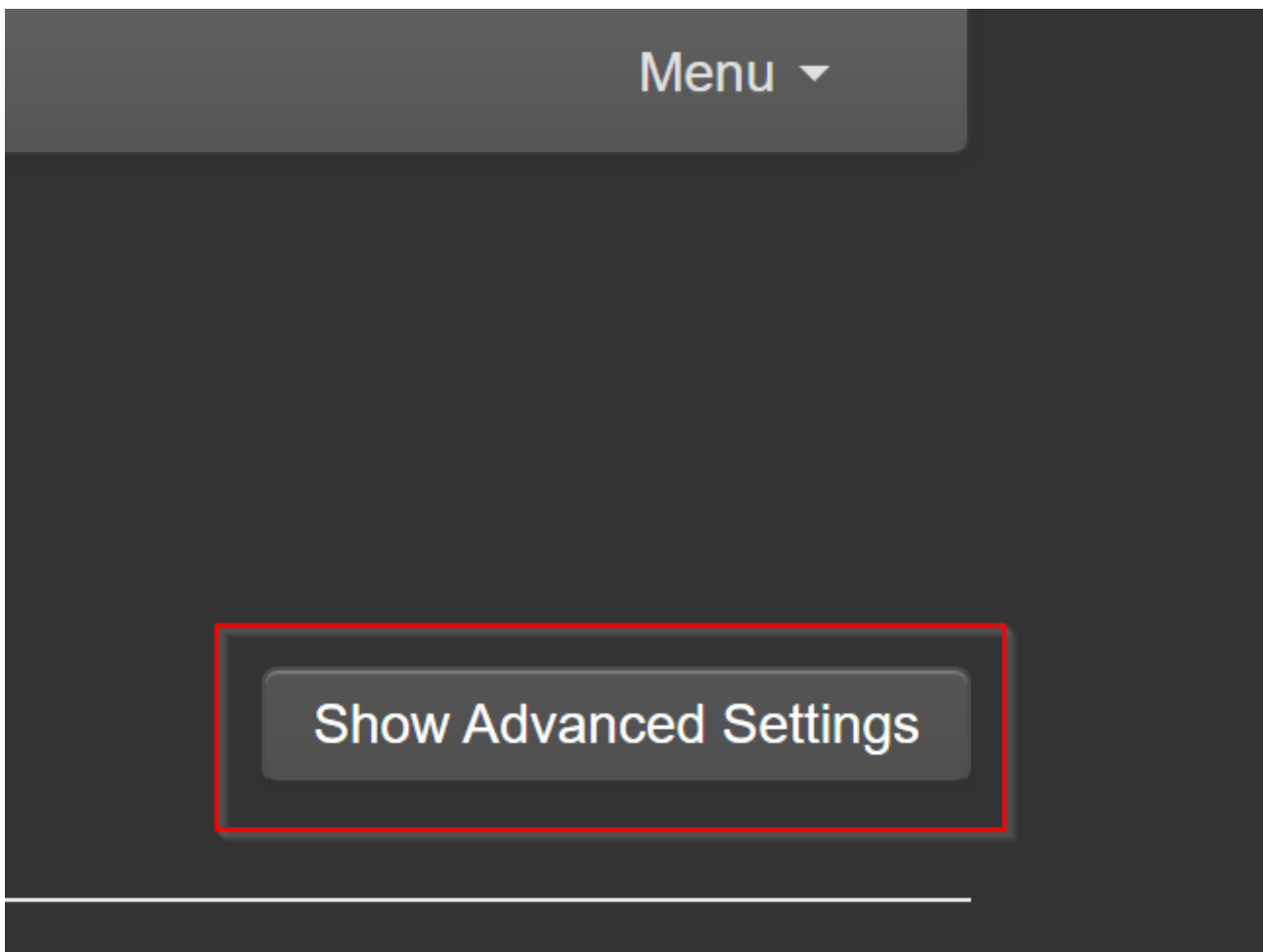
[login](#)

lost password

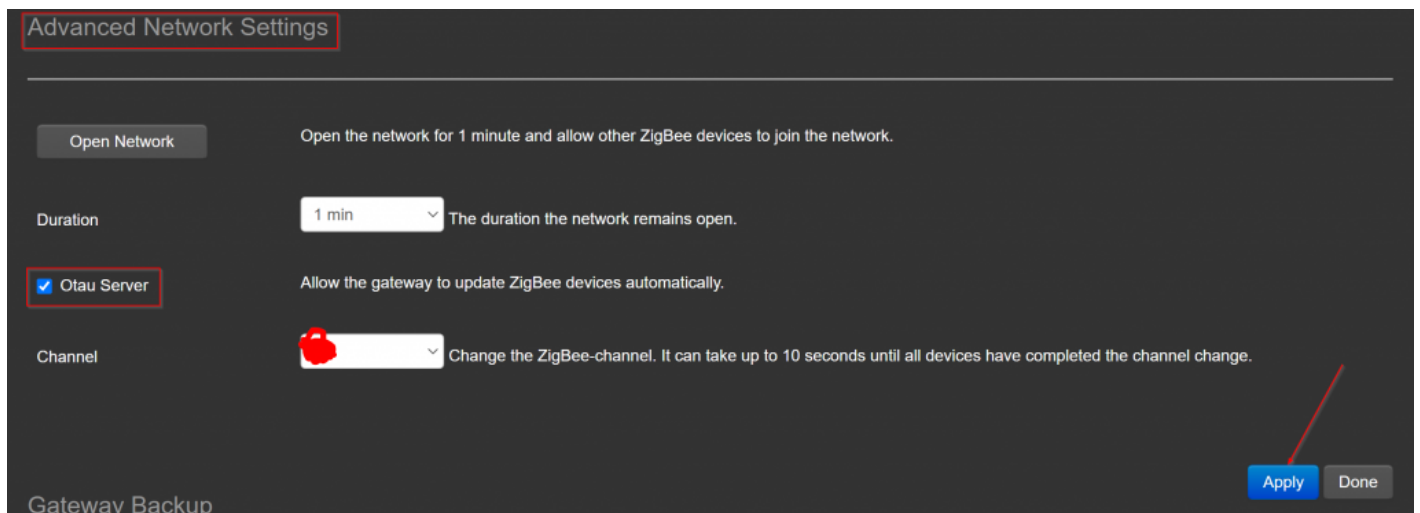
Click **Menu -> Settings**



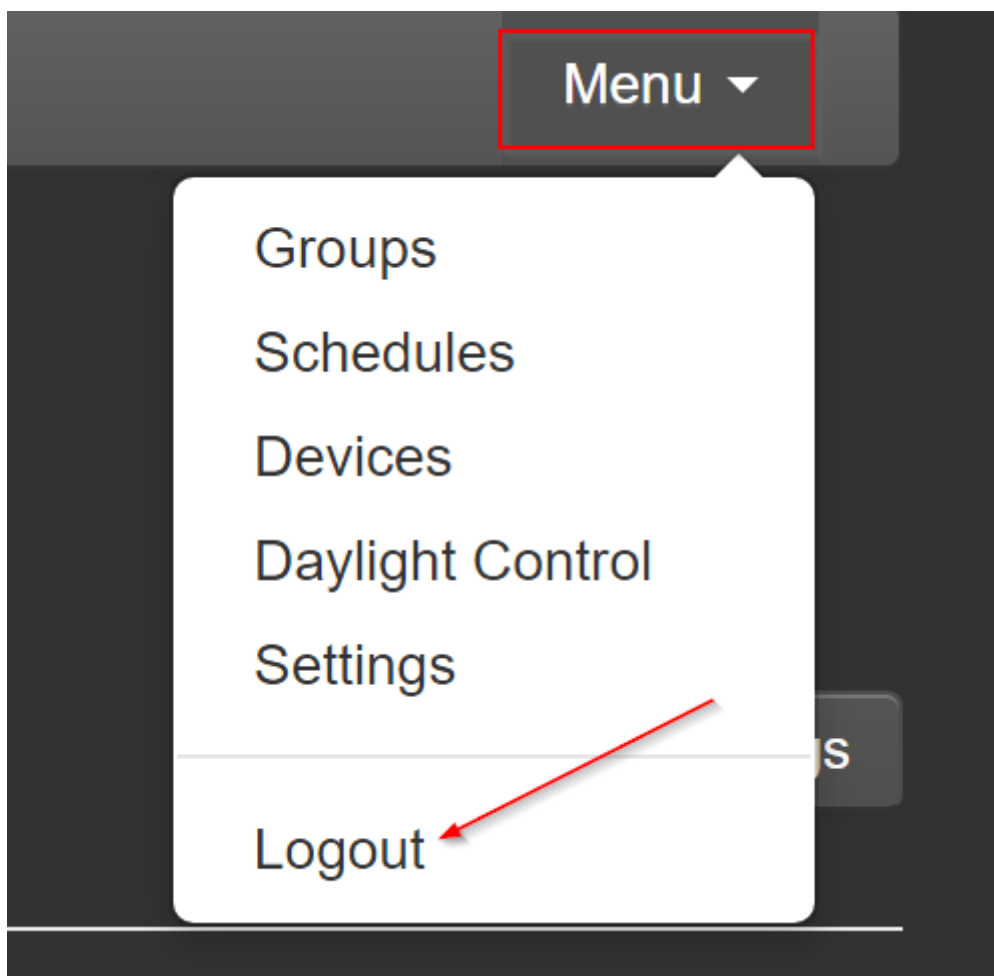
Click **Show Advanced Settings**



Go to the **Advanced Network Setting** section. Enable **OTAU Server** and click **Apply**.



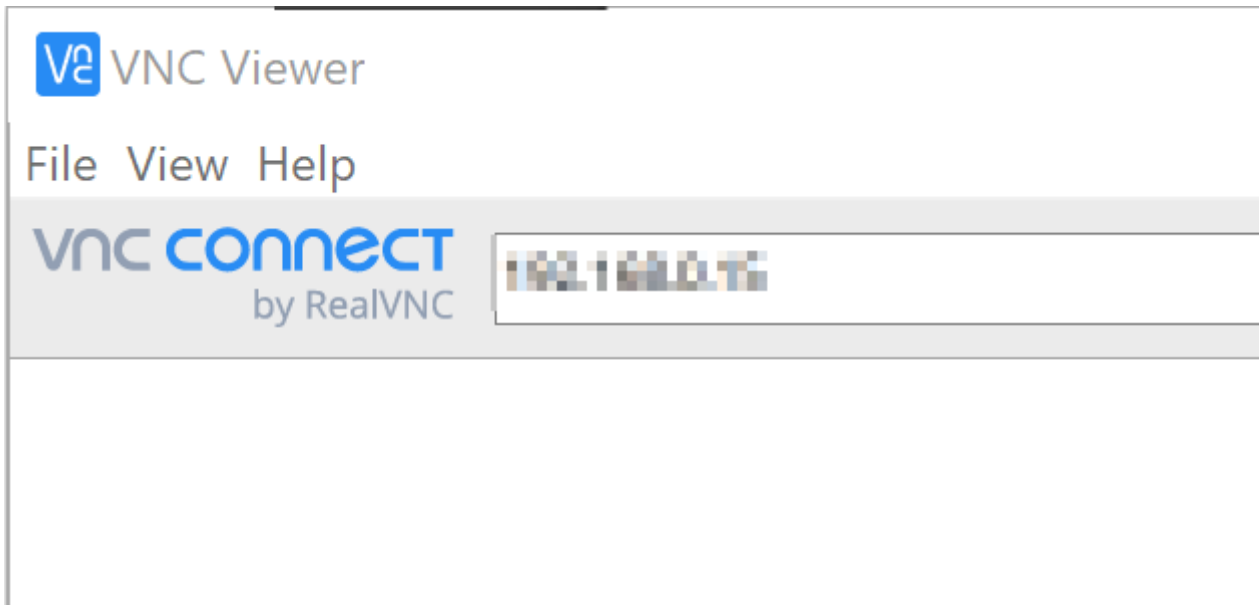
Go to **Menu** -> **Logout**.



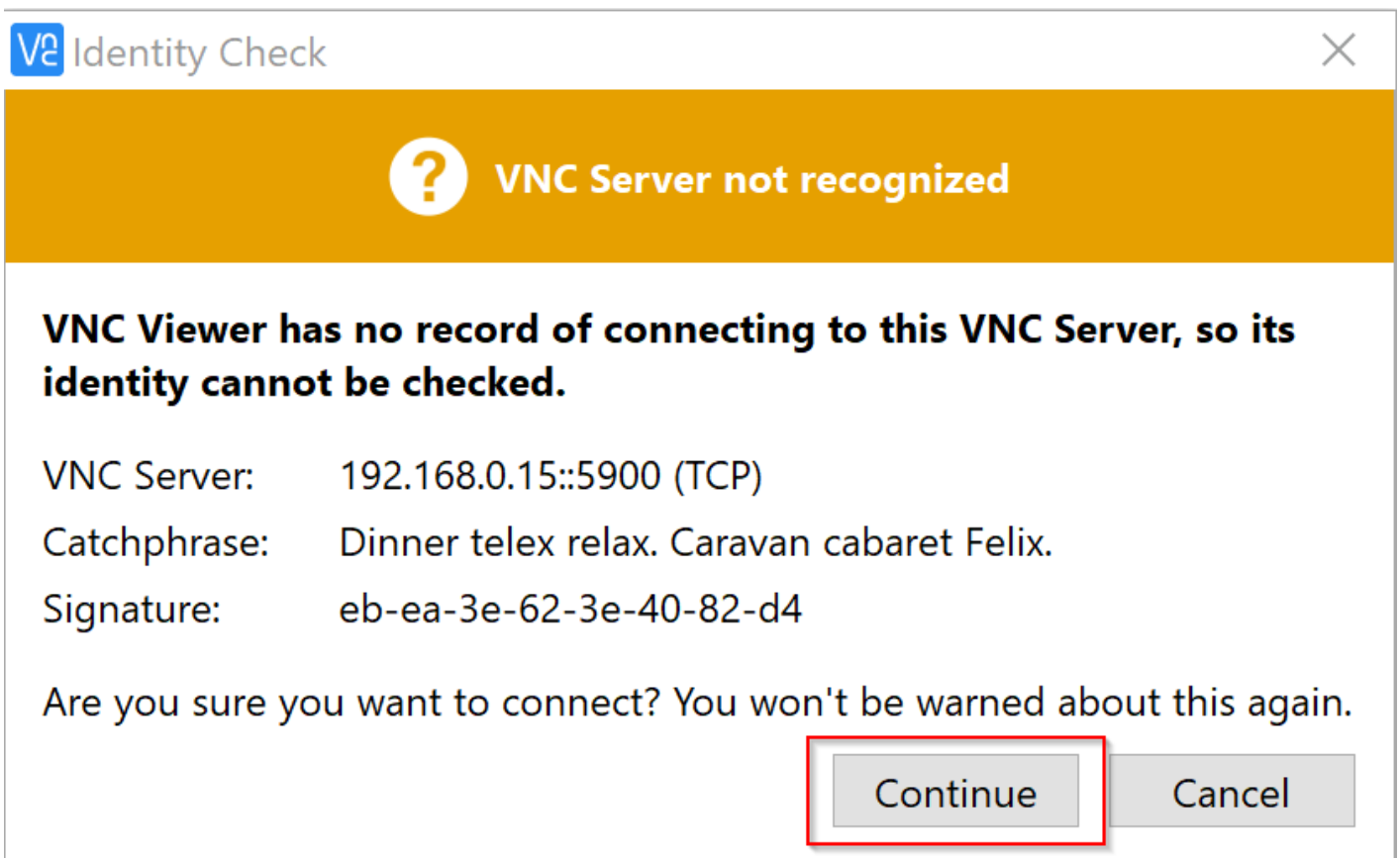
Download Ikea firmware.

You need a VNC viewer to connect to your Raspberry PI. I use realVNC witch is free. But you can use one of your own choice.

Open VNC and enter the Deconz IP address and connect. In Realvnc you have the option to save the connection.




Click **Continue** to the Identity Check.




Enter **username** and **password** and click **OK**

Username: pi

Password: YOUR DECONZ PASSWORD

 Authentication ✕

 **Authenticate to VNC Server**
192.168.0.15::5900 (TCP)


Enter VNC Server credentials
(Hint: NOT your RealVNC account details)

Username:

pi

Password:

●●●●●●●●



☐ Remember password [Forgot password?](#)

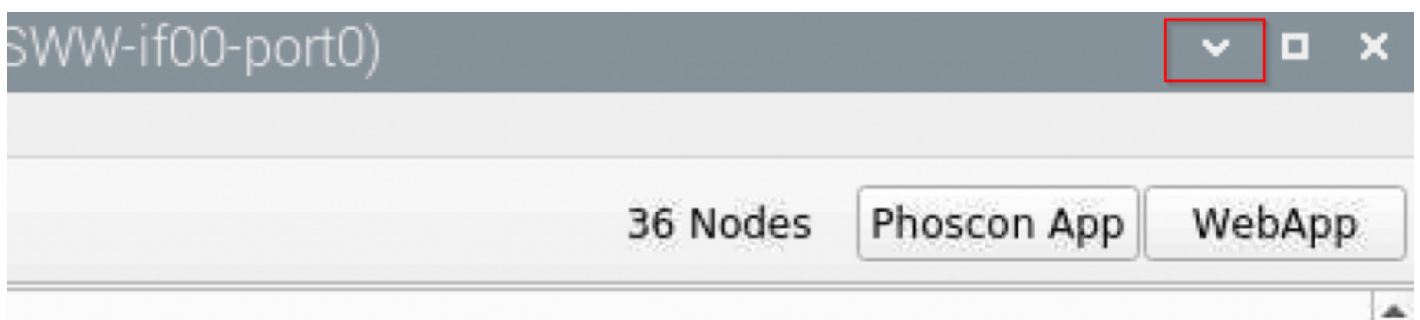
Catchphrase: Dinner telex relax. Caravan cabaret Felix.

Signature: eb-ea-3e-62-3e-40-82-d4

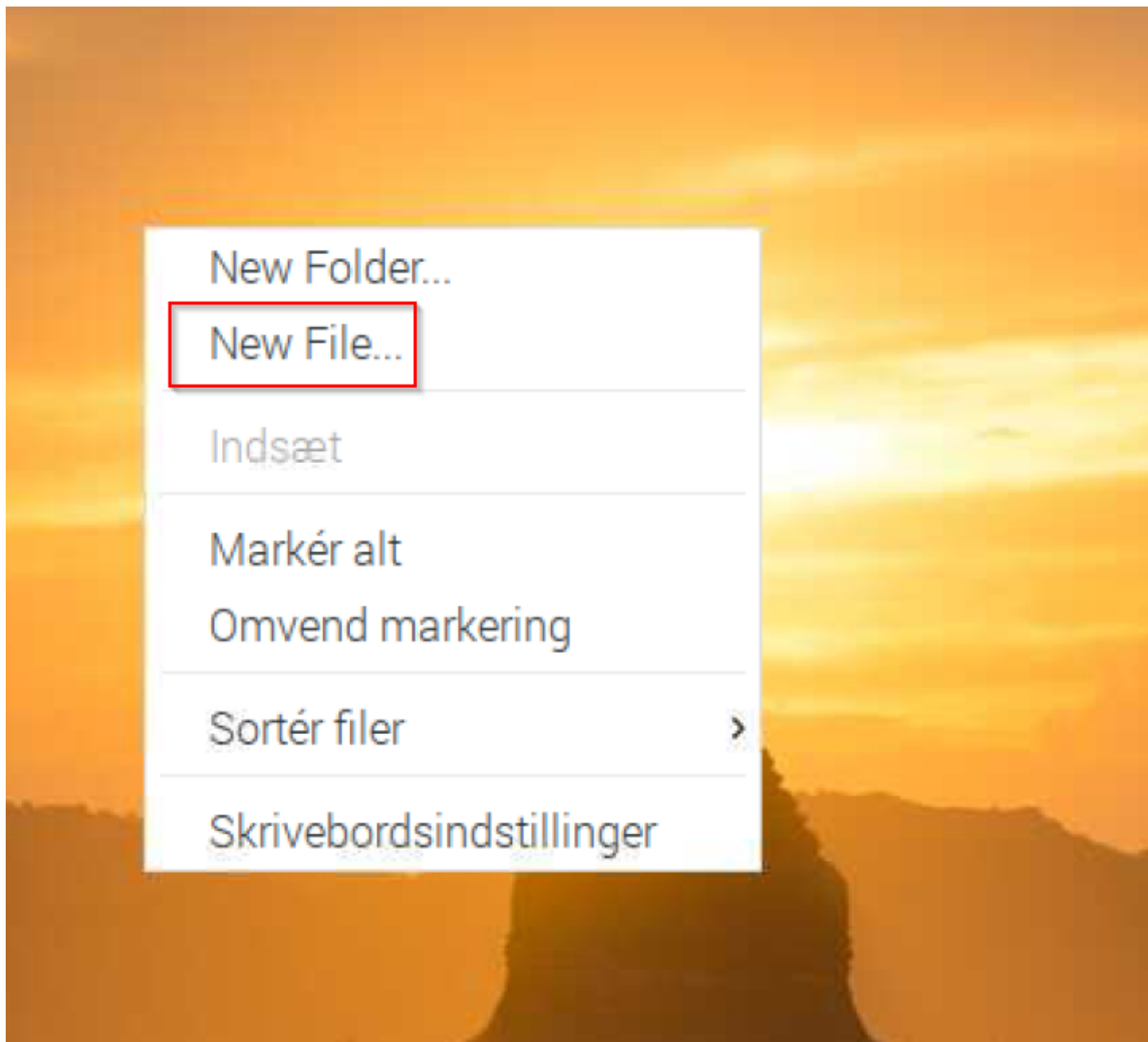
OK

Cancel

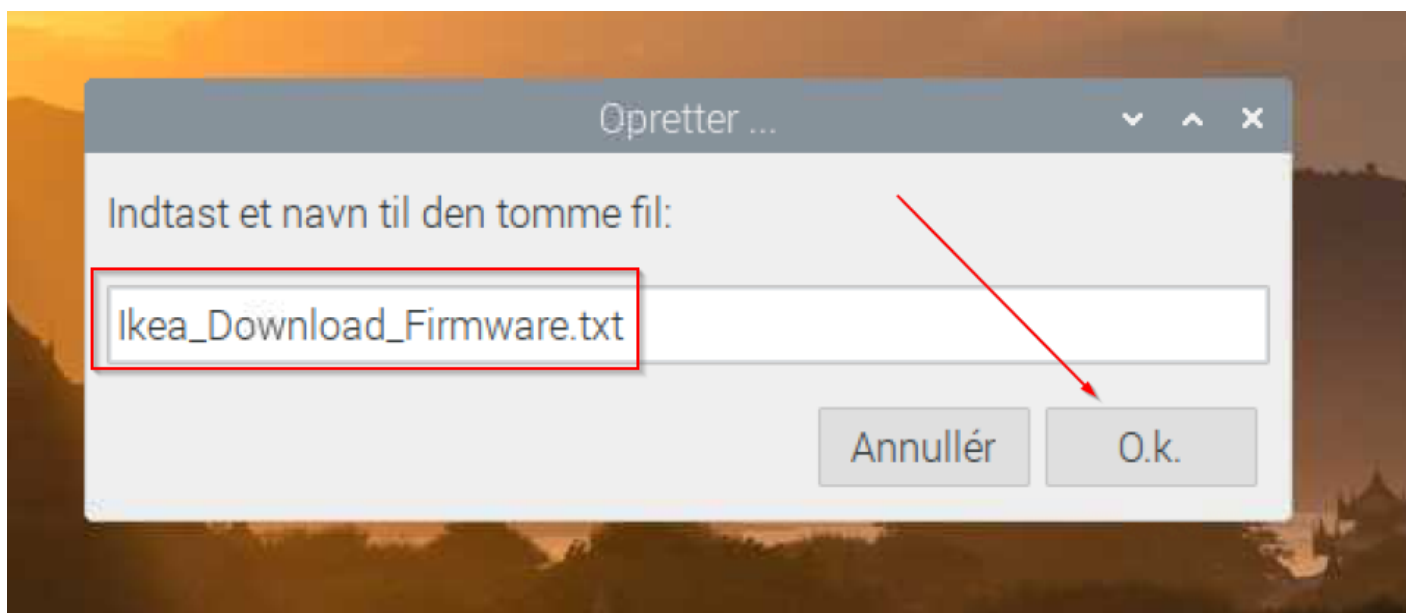
Minimize Deconz



Right click on the desktop -> New File



Call it ex. "Ikea_Download_Firmware.txt" -> Click **O.K.**



Open the browser -> go to this this url:

<https://github.com/dresden-elektronik/deconz-rest-plugin/blob/master/ikea-ota-download.py>

deconz-rest-plugin/ikea-ota-download.py at master · dresden-elektronik/deconz-rest-plugin · GitHub

deconz-rest-plugin/ikea-ota-download.py

github.com/dresden-elektronik/deconz-rest-plugin/blob/master/ikea-ota-download.py

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dresden-elektronik / deconz-rest-plugin

Code Issues 221 Pull requests 25 Actions Projects Wiki

master deconz-rest-plugin / ikea-ota-download.py / Jump to

lalamber Update json.loads line for python 3.5

5 contributors

41 lines (29 sloc) | 782 Bytes

```
1 #!/usr/bin/env python
2 """
3 Snipped to download current IKEA ZLL OTA files into ~/otau
```

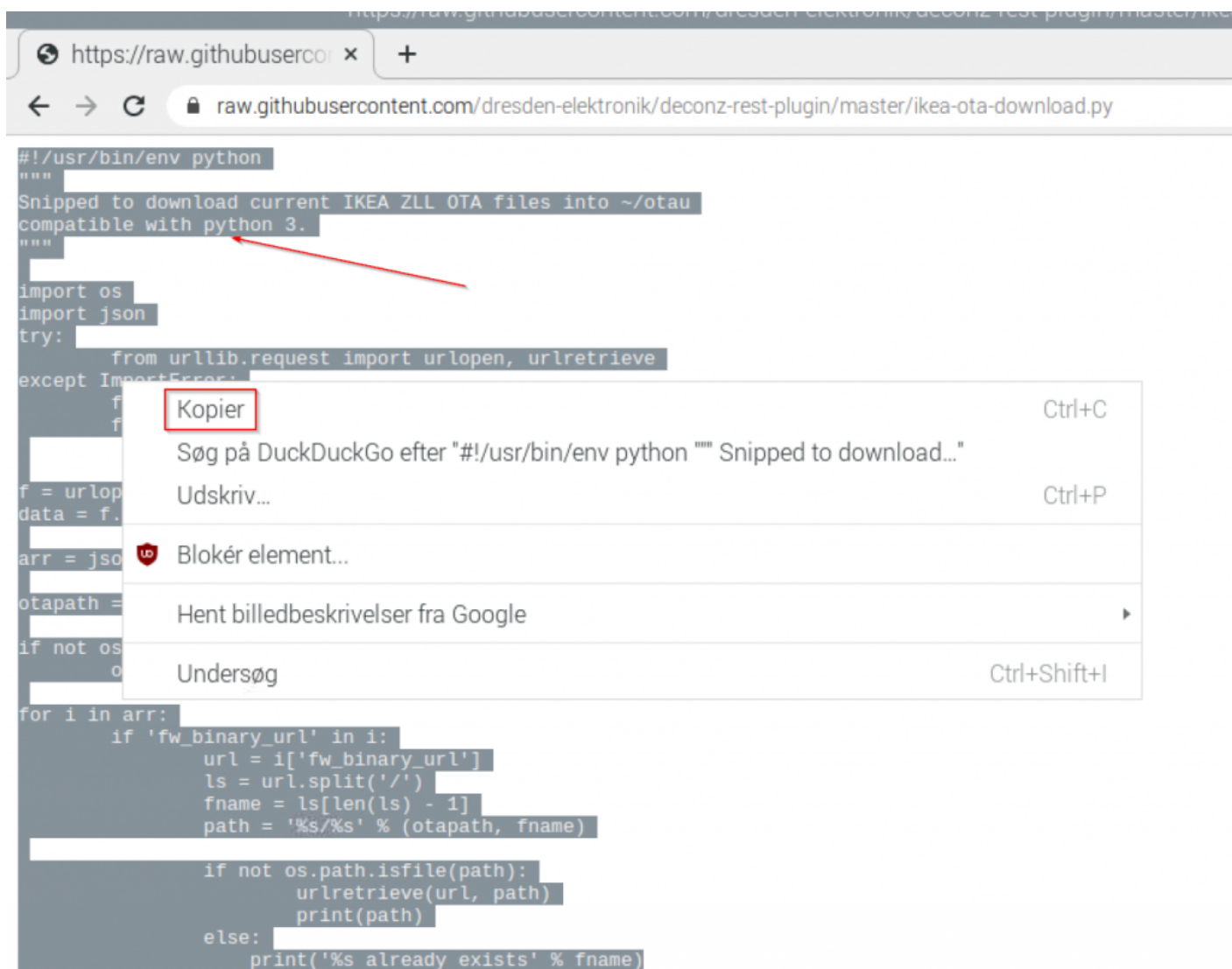
Click **Raw**

Go to file ...

Latest commit 5e5f5c8 on 4 May 2020 History

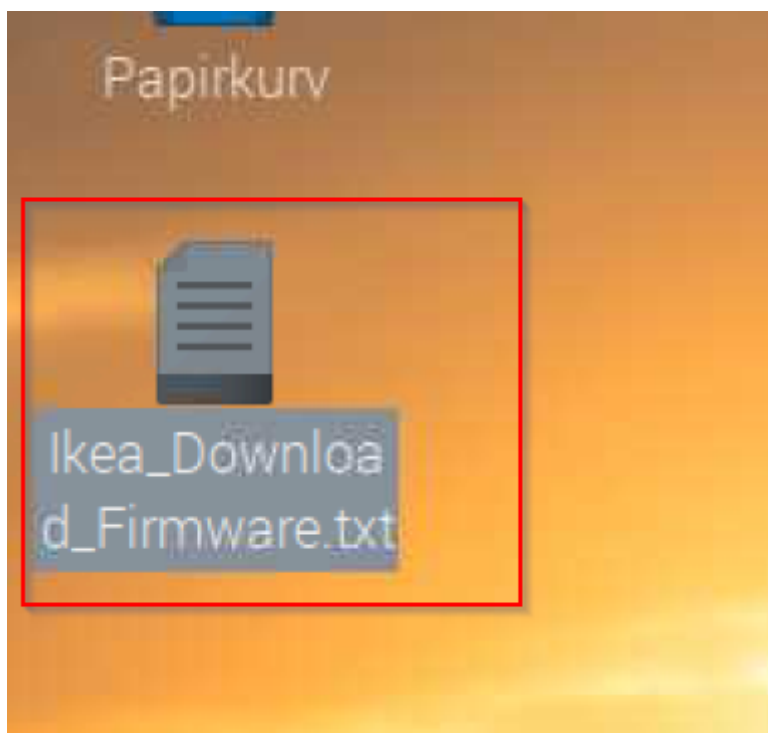
Raw Blame

Mark the txt -> copy it.

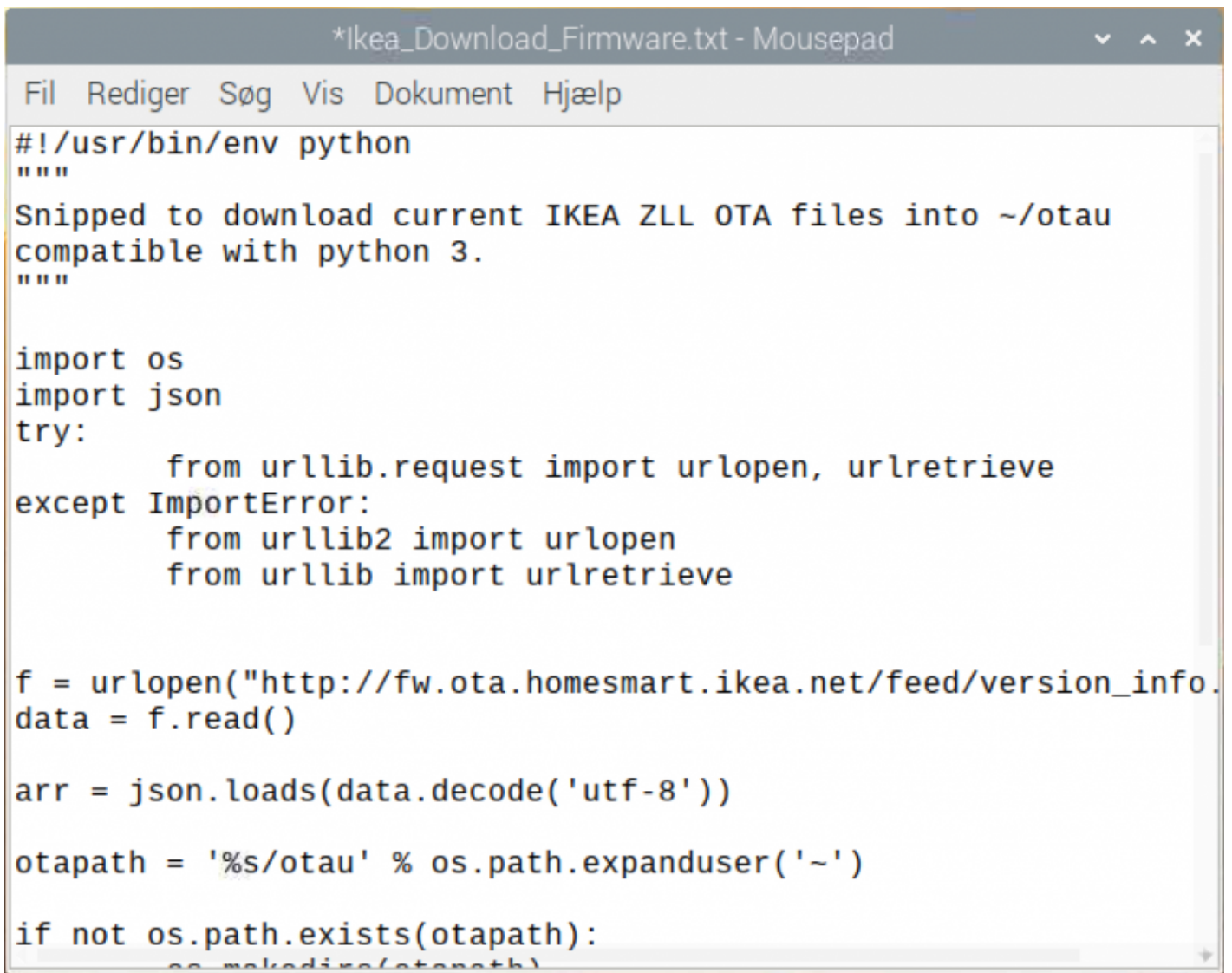


```
#!/usr/bin/env python
"""
Snipped to download current IKEA ZLL OTA files into ~/otau
compatible with python 3.
"""
import os
import json
try:
    from urllib.request import urlopen, urlretrieve
except ImportError:
    pass
f = urlopen('https://raw.githubusercontent.com/dresden-elektronik/deconz-rest-plugin/master/ikea-ota-download.py')
data = f.read()
arr = json.loads(data)
otapath = os.path.expanduser('~/.otau')
if not os.path.exists(otapath):
    os.makedirs(otapath)
for i in arr:
    if 'fw_binary_url' in i:
        url = i['fw_binary_url']
        ls = url.split('/')
        fname = ls[len(ls) - 1]
        path = '%s/%s' % (otapath, fname)
        if not os.path.isfile(path):
            urlretrieve(url, path)
            print(path)
        else:
            print('%s already exists' % fname)
```

Open “Ikea_Download_Firmware.txt” located on the desktop.



Paste the text that you have copied from the web page into the “Ikea_Download_Firmware.txt” -
> Save the file.



```
*Ikea_Download_Firmware.txt - Mousepad
File Rediger Søg Vis Dokument Hjælp

#!/usr/bin/env python
"""
Snipped to download current IKEA ZLL OTA files into ~/otau
compatible with python 3.
"""

import os
import json
try:
    from urllib.request import urlopen, urlretrieve
except ImportError:
    from urllib2 import urlopen
    from urllib import urlretrieve

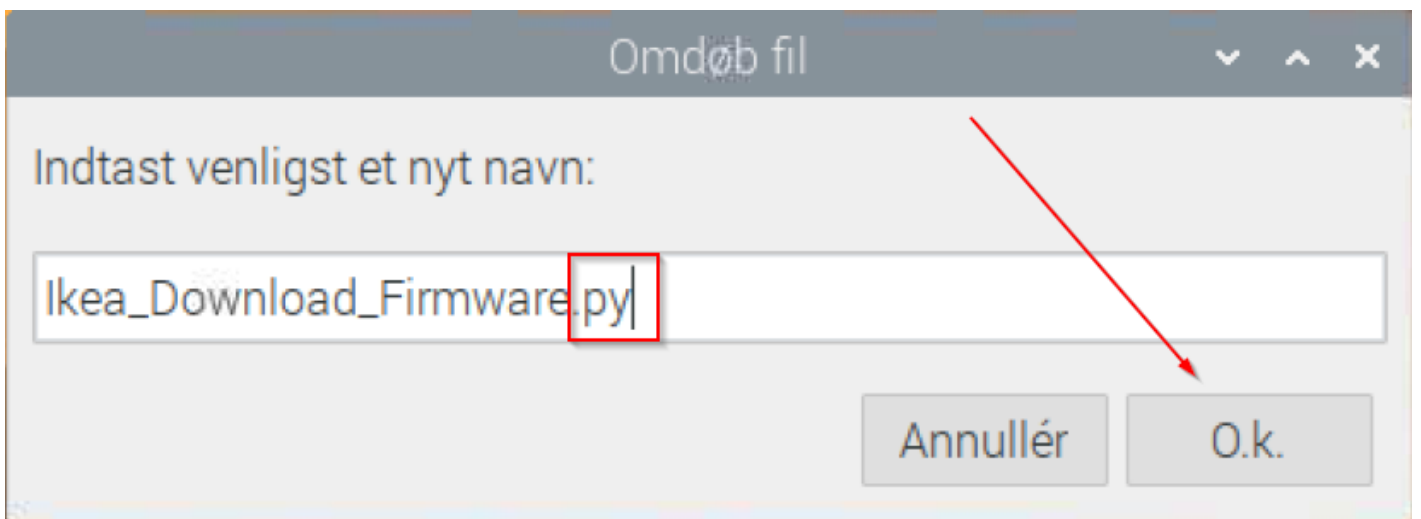
f = urlopen("http://fw.ota.homesmart.ikea.net/feed/version_info.
data = f.read()

arr = json.loads(data.decode('utf-8'))

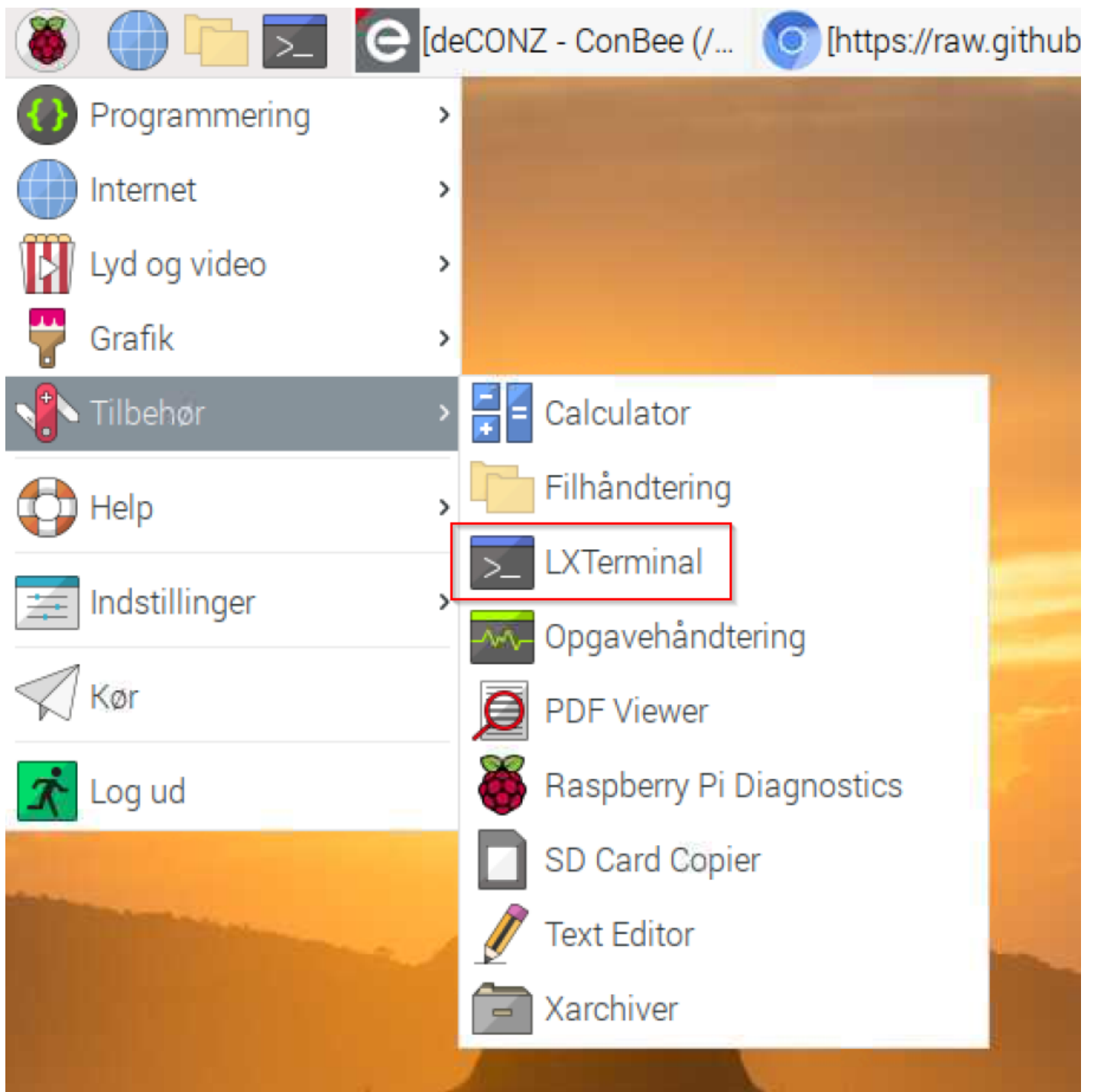
otapath = '%s/otau' % os.path.expanduser('~')

if not os.path.exists(otapath):
    os.makedirs(otapath)
```

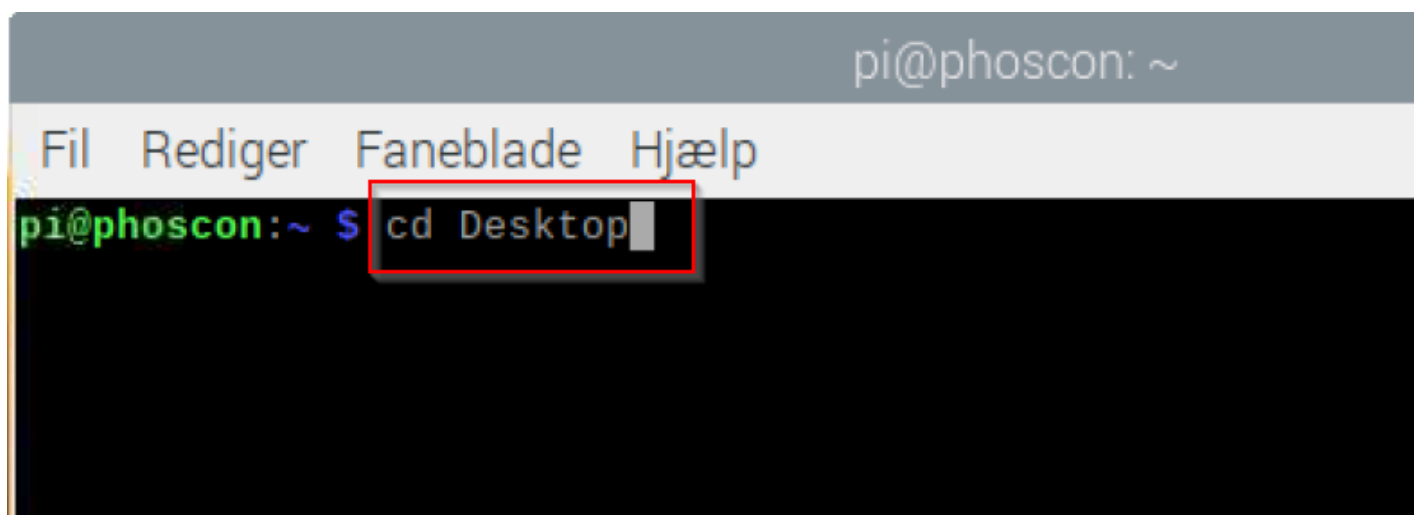
Rename the file to .py instead of .txt: **Ikea_Download_Firmware.py** -> Click **O.K.**



Open "terminal"



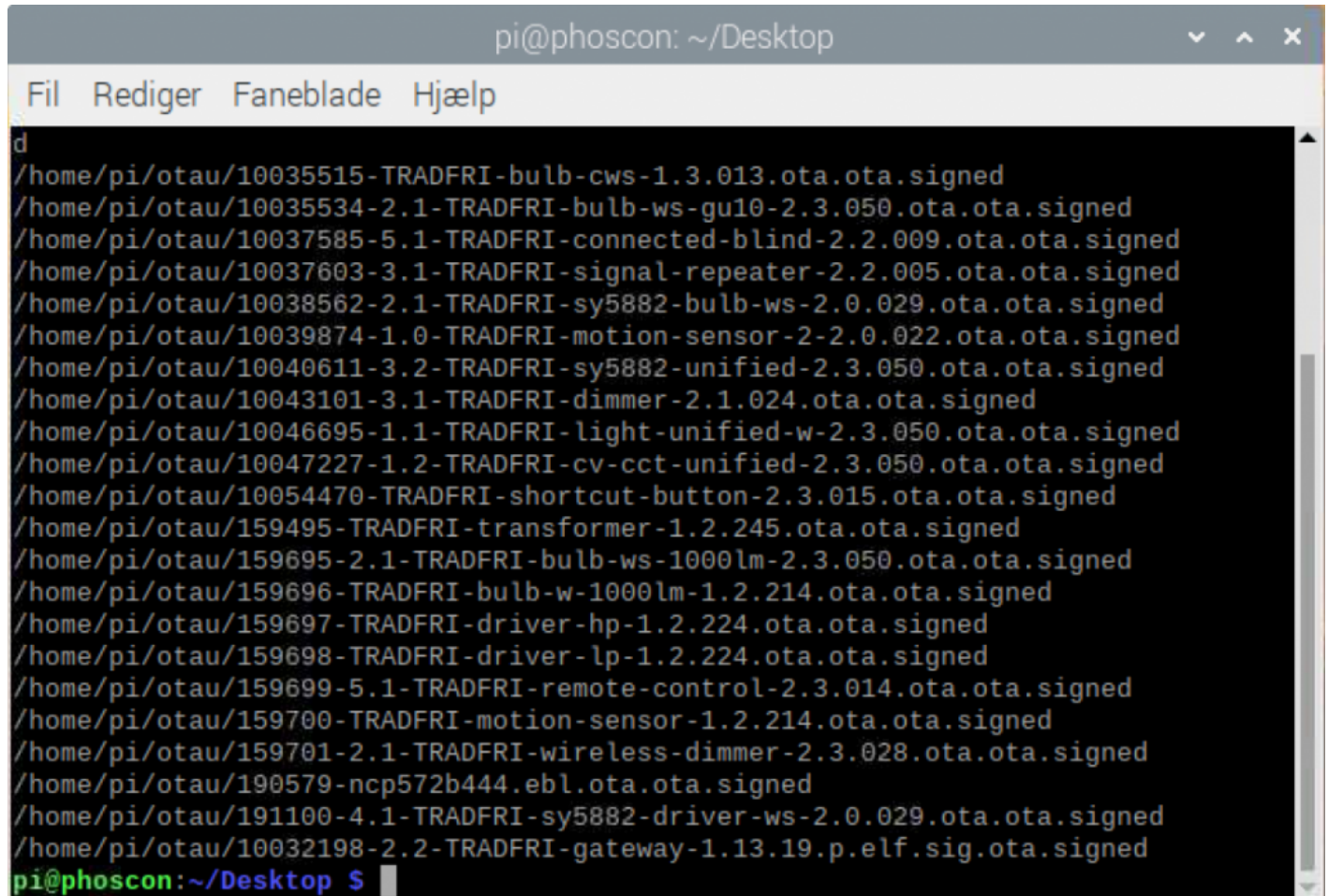
Type **"cd Desktop"** -> **Enter**. Linux is case sensitive, so make sure the you have a capital D in Desktop.



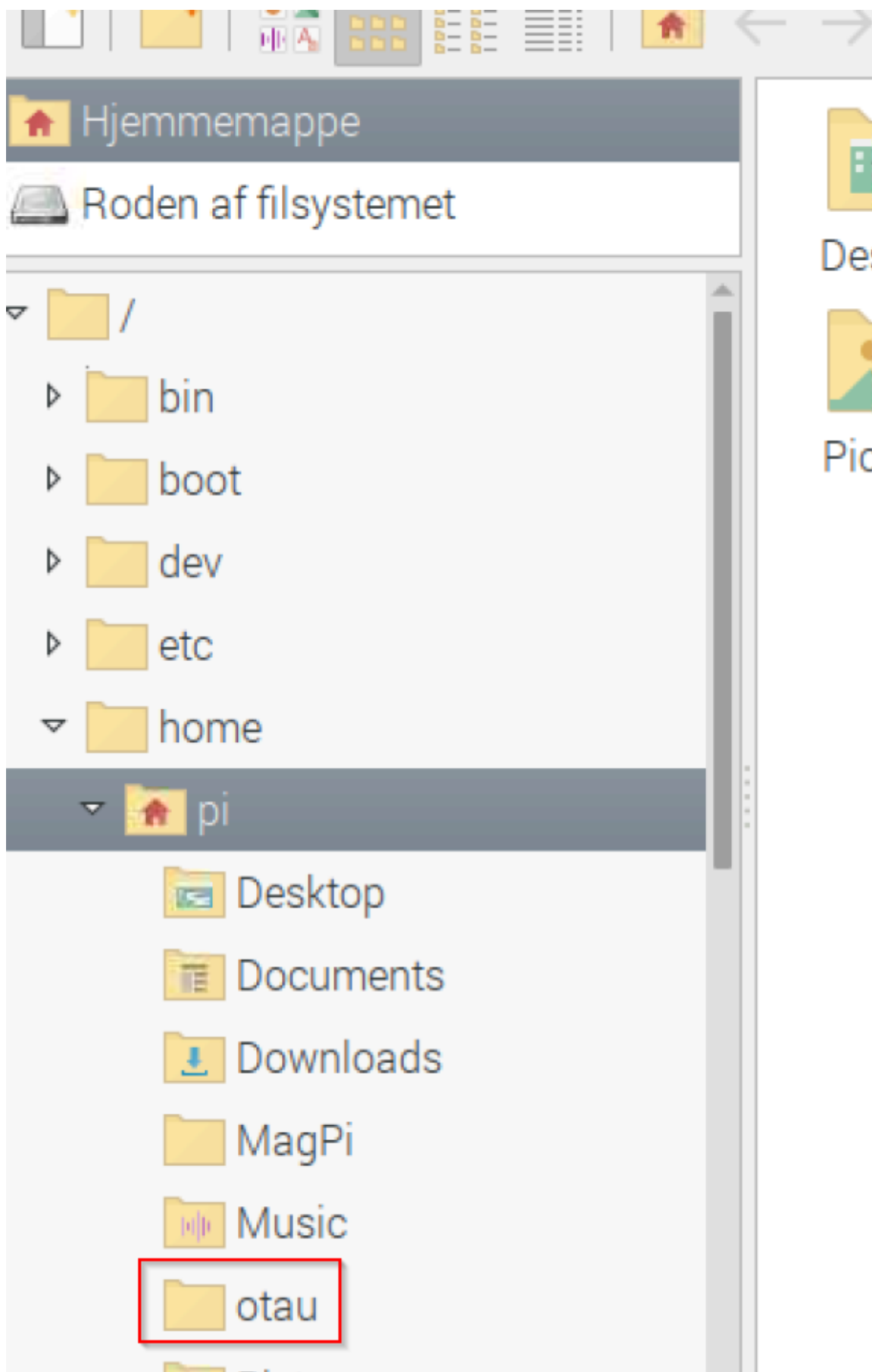
Type **"python Ikea_Download_Firmware.py"** -> **Enter**. Linux is case sensitive, so make sure the you have a capital D in Desktop.

```
pi@phoscon:~/Desktop $ python Ikea_Download_Firmware.py
```

All Ikea firmware update is now download. They are save in the OTAU folder under the profile. **Don't change this path or folder name!**

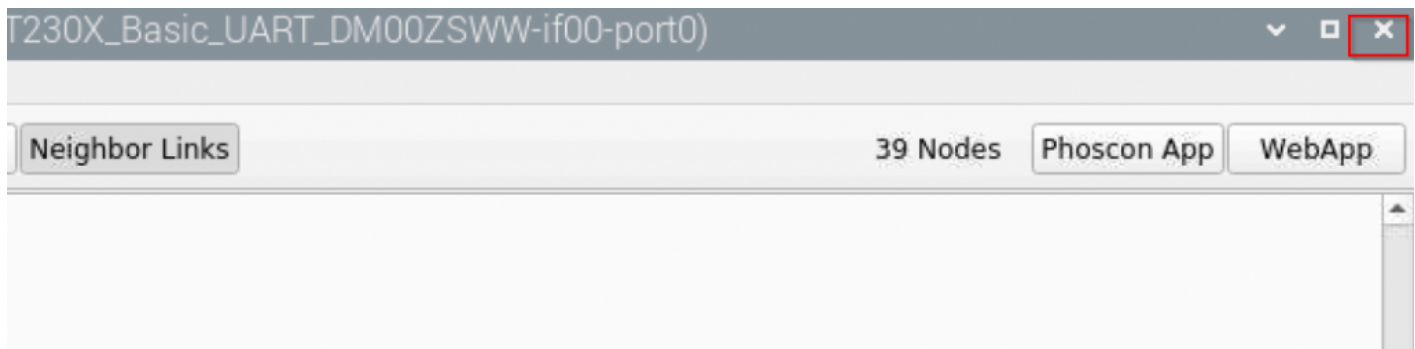


```
pi@phoscon: ~/Desktop
Fil Rediger Faneblade Hjælp
d
/home/pi/otau/10035515-TRADFRI-bulb-cws-1.3.013.ota.ota.signed
/home/pi/otau/10035534-2.1-TRADFRI-bulb-ws-gu10-2.3.050.ota.ota.signed
/home/pi/otau/10037585-5.1-TRADFRI-connected-blind-2.2.009.ota.ota.signed
/home/pi/otau/10037603-3.1-TRADFRI-signal-repeater-2.2.005.ota.ota.signed
/home/pi/otau/10038562-2.1-TRADFRI-sy5882-bulb-ws-2.0.029.ota.ota.signed
/home/pi/otau/10039874-1.0-TRADFRI-motion-sensor-2-2.0.022.ota.ota.signed
/home/pi/otau/10040611-3.2-TRADFRI-sy5882-unified-2.3.050.ota.ota.signed
/home/pi/otau/10043101-3.1-TRADFRI-dimmer-2.1.024.ota.ota.signed
/home/pi/otau/10046695-1.1-TRADFRI-light-unified-w-2.3.050.ota.ota.signed
/home/pi/otau/10047227-1.2-TRADFRI-cv-cct-unified-2.3.050.ota.ota.signed
/home/pi/otau/10054470-TRADFRI-shortcut-button-2.3.015.ota.ota.signed
/home/pi/otau/159495-TRADFRI-transformer-1.2.245.ota.ota.signed
/home/pi/otau/159695-2.1-TRADFRI-bulb-ws-1000lm-2.3.050.ota.ota.signed
/home/pi/otau/159696-TRADFRI-bulb-w-1000lm-1.2.214.ota.ota.signed
/home/pi/otau/159697-TRADFRI-driver-hp-1.2.224.ota.ota.signed
/home/pi/otau/159698-TRADFRI-driver-lp-1.2.224.ota.ota.signed
/home/pi/otau/159699-5.1-TRADFRI-remote-control-2.3.014.ota.ota.signed
/home/pi/otau/159700-TRADFRI-motion-sensor-1.2.214.ota.ota.signed
/home/pi/otau/159701-2.1-TRADFRI-wireless-dimmer-2.3.028.ota.ota.signed
/home/pi/otau/190579-ncp572b444.ebl.ota.ota.signed
/home/pi/otau/191100-4.1-TRADFRI-sy5882-driver-ws-2.0.029.ota.ota.signed
/home/pi/otau/10032198-2.2-TRADFRI-gateway-1.13.19.p.elf.sig.ota.signed
pi@phoscon:~/Desktop $
```

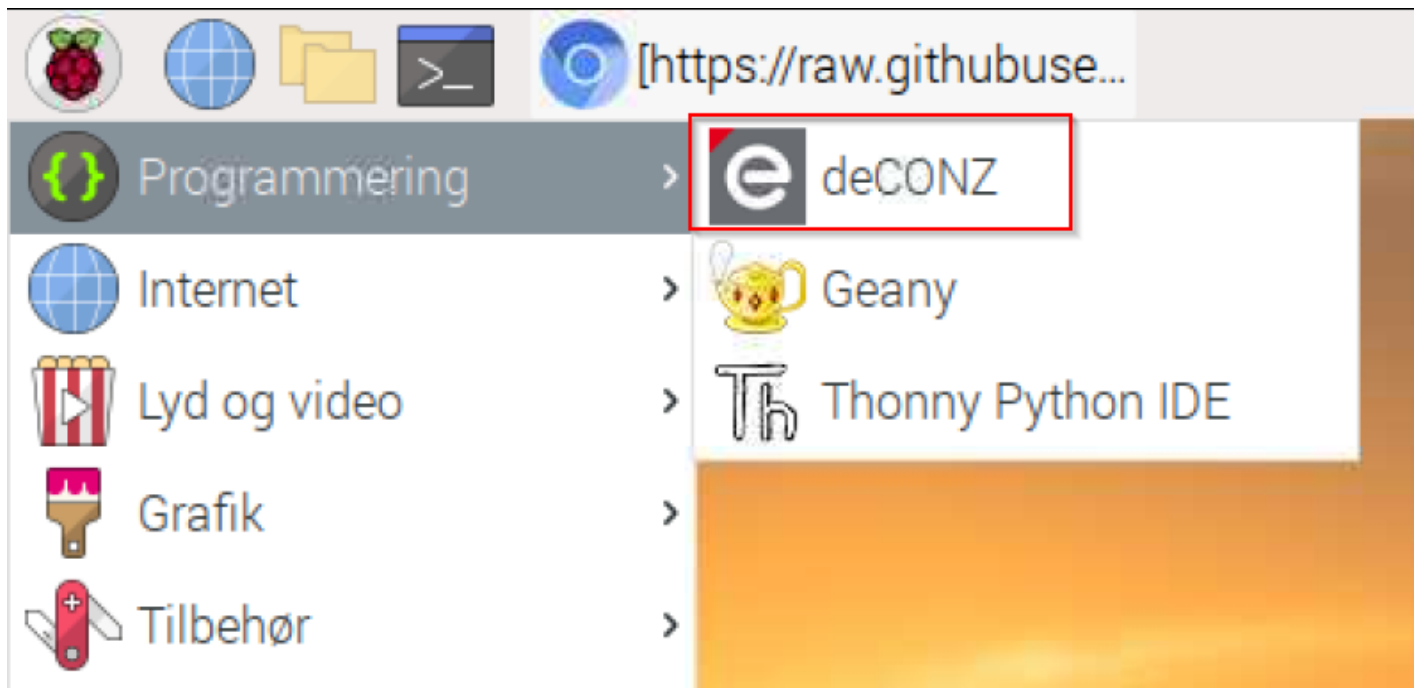


Updating Ikea devices

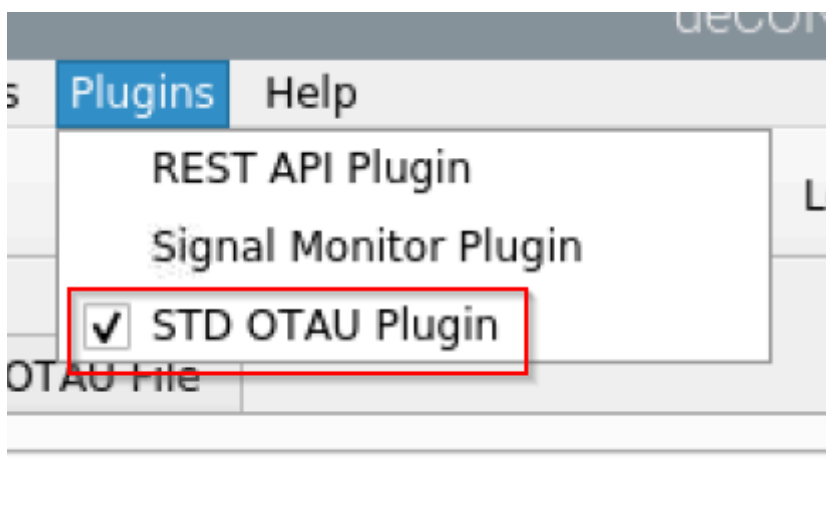
Close "Deconz"



Start “Deconz” again



Enable the “**STD OTAU Plugin**” plugin.



You can see that “**OTAU enabled**” is checked.

STD OTAU Plugin

OTAU Update OTAU File

Otau File

Manufacturer Id Image Type

File Version Size

☒ Restart Device After Upgrade ☐ Use ACKs

Last Image Query ☒ Page Request

Packet Spacing

OTAU enabled Query Abort Update

Address	Vendor	Image	Version	Progress	T
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Click on a **Ikea light** in the right handside -> Click **Query** in the left handside. Deconz til now get information about the light.

Packet Spacing

OTAU enabled Query Abort Update

Address	Vendor	Image	Version	Progress	T
0x680AE2FFFE9154D0	0x0000	0x0000	0x00000000	No file	0:0
0x680AE2FFFE91BC63	0x0000	0x0000	0x00000000	No file	0:0
0x680AE2FFFEA24A40	0x0000	0x0000	0x00000000	No file	0:0
0x680AE2FFFE33346	0x0000	0x0000	0x00000000	No file	0:0
0x680AE2FFFEFADF17	0x0000	0x0000	0x00000000	No file	0:0
0x680AE2FFFEFF0CF2	0x0000	0x0000	0x00000000	No file	0:0
0x90FD9FFFE4D6487	0x0000	0x0000	0x00000000	No file	0:0
0x90FD9FFFE65E10C	0x0000	0x0000	0x00000000	No file	0:0

Soveværelse - Loft lys
90FD9FFFE4D6487

If a firmware is newer (We download these in an earlier step), than the one that the device is using. Then Deconz will automatically start the upgrade process. You don't have to choose anything. Deconz will handle that for you. After you hit **Query**, then all the information will also be added to Deconz. In **Version** you can see the current version and in **Time** you can see how long the update have been running. It will take between 15-20 minutes to upgrade a light bulb. After the upgrade the light bulb will reboot. So if you light is on, then it will turn off and then on again after some seconds.

Address ▼	Vendor	Image	Version	Progress	Time
0x680AE2FFFE9154D0	0x0000	0x0000	0x00000000	No file	0:00
0x680AE2FFFE91BC63	0x0000	0x0000	0x00000000	No file	0:00
0x680AE2FFFEA24A40	0x0000	0x0000	0x00000000	No file	0:00
0x680AE2FFFECA33346	0x0000	0x0000	0x00000000	No file	0:00
0x680AE2FFFEFADF17	0x0000	0x0000	0x00000000	No file	0:00
0x680AE2FFFEFF0CF2	0x0000	0x0000	0x00000000	No file	0:00
0x90FD9FFFE4D6487	0x117c	0x2202	0x23007631	2.51%	0:55

That it. Please remember that once in a while you have to run the script again to get new firmware updates if Ikea have published them. Maybe you should set up a scheduled task that run every month or so.

Happy updating 😊