Internet Cycler ("Turn it off and on again")

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Overview

Our internet kinda sucks from time to time. In an effort to automate the "turning it off and back on again" fix. I decided to automated the task.

The logic work like this:

- make sure you are connected to WIFI
- ping the gateway ip
- ping google's dns server 8.8.8.8 (if the other steps have passed)

If we get 5 concurrent failures when trying to ping Google's DNS, then we cycle the power.

Hardware

For this project, I used a Wyze WLPP1 Smart Home Plug.



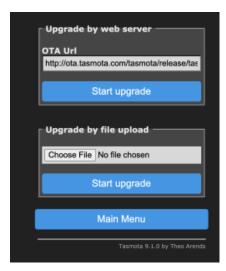
We flashed this smart plug using an over the air technique, so we did not have to open it up. See Wyze Labs WLPP1 Smart Home Plug for details on performing OTA and flashing with Tasmota.

Flashing Custom Firmware

If you have gotten this far, you can install some custom firmware.

Open your browser to the wyze plug and navigate to the "Firmware Upgrade" menu.

ON
Toggle
Configuration
Information
Firmware Upgrade
Console
Restart
Tasmota 9.1.0 by Theo Arends



From this screen, click the "Choose File" button and upload the custom firmware file (see reference section).

After, updating the firmware, the device will reboot. It will show up as a new WIFI connection called "Internet". Connect to the "Internet" WIFI access point and navigate to http://192.168.4.1/

Let's reset the firmware so it's not using the data written to it from Tasmota.

Browse to http://192.168.1.4/reset

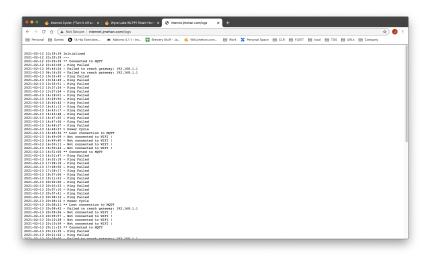
After it reboots, you can access it's WIFI again and add it to your WIFI network.

Internet

Status		Time: 2021/02/12 12:39
Power	ON	
	Cycle	
	Toggle	
Network		
Wifi Network	mehan0	
Wifi Password		
	update	
Upload Firmware		
Current version:	1.2-20210208_2343	
File	Choose File No file chosen	
	update	
Copyright © Creative Atthude. All Rights Reserved.		Uptime: 2 days, 11 hours, 37 minutes, 12 second

Now you should be all set.

To see the logs generated, you can browse to http://<IP>/logs



References

Reference	URL
Redit Post	https://www.reddit.com/r/wyzecam/comments/I54d8b/instructions_and_software_install_tasmota_on_wyze/
Flasher	https://github.com/elahd/wyze_plug_flasher
Wyze WLPP1 Template	https://templates.blakadder.com/wyze_WLPP1.html
Teardown Video	https://www.youtube.com/watch?v=7p6VcA8Z5vM
Custom Firmware	smartSwitch.ino.generic.wyze.v1.4.bin