

RACHEL-Pi Kolibri

This image is based on Raspbian Stretch Lite for the Raspberry Pi hardware which brings support for the latest Raspberry Pi hardware and other features. It includes Kolibri from Learning Equality.

Getting Started

1. Unzip `rachel_pi_kolibri_03_30_19.7z` using 7zip from www.7-zip.org
 2. Use a program like Etcher to flash the extracted image file to your storage device
 3. Connect your Raspberry Pi to the internet using an ethernet cable
 4. Place the storage device in your Raspberry Pi and turn it on
 5. Connect to the RACHEL-Pi wireless network with another device
 6. Go to www.rachel.pi or 10.10.10.10 in your browser
- If you're using a router, you can navigate to RACHEL using the IP address your router provided your pi instead of connecting to the wireless network
 - On first boot the file system will be expanded to use the free space on your device. Please wait for this process to complete before shutting down or rebooting. You can refresh the hardware tab in the admin interface for progress. Your device will be slow until this completes
 - Always shut down using the Hardware page in the admin interface. Wait until all green light activity has stopped to be sure your device is ready to have the power disconnected to avoid corruption of the storage device. This will be 10-12 flashes followed by one long flash of the green light.

Kolibri

Kolibri can be accessed by clicking the link in the `en-kolibri-index` module or by going to port 9090. For instance, <http://10.10.10.10:9090> or <http://www.rachel.pi:9090/>. For more information about installing Kolibri channels and setting up your facility go to

<https://kolibri.readthedocs.io/en/latest/manage.html#manage>

Installing Modules

1. Navigate to the admin interface by clicking the admin link in the banner
 2. Log in using "admin" as the user and "Rachel+1" as the password
 3. Navigate to the install tab
 4. Select a module from the list and click download. If the list says "error" refresh the page
- This image does not include KA-Lite as it is replaced by Kolibri. KAOS modules are supported but KA-Lite modules will not run
 - Kolibri Modules should be installed through Kolibri and not this page
 - en-file_share and en-kolibri-index are included in this image as they required changes to work
 - While connected to the internet your device shares your internet connection by default. To disable WIFI temporarily you can log in to your pi with the user "pi" and password "rachel" and disable it using the command "sudo ifconfig wlan0 down". WIFI will be enabled when you reboot
 - After installing Wikipedia modules you will need to reboot for them to work. You will also need to reboot after hiding Wikipedia modules for them to not show in the Wikipedia library

Supported Hardware

This image has been tested on the Raspberry Pi 0W, 2B, 3B, and 3B+ with both USB and Micro SD.

- It is recommended that you use another image with the 0W model that does not include Kolibri as the 0W's CPU will be at 100% usage.
- Due to the lack of a wired connection on the pi0w, the easiest way to install modules if you would like to test this image is to use a 2B, 3B, or 3B+ to build an image and use that storage device with your pi0w.

Enabling USB Boot for 0W, 2B, and 3B

The 3B+ is the only pi that supports USB booting without extra steps. For other models please follow the guide below from the Raspberry Pi Foundation to enable USB booting.

<https://www.raspberrypi.org/documentation/hardware/raspberrypi/bootmodes/msd.md>

For the Zero W and 2B you must still have a Micro SD card with the file "bootcode.bin" on it to boot from USB. The file can be found at the link below.

<https://github.com/raspberrypi/firmware/blob/master/boot/bootcode.bin>

Changelog

- Updated 03/30/2019
- Based on Raspbian Stretch Lite 2018-11-13
- Kolibri updated to 0.12.1
- Kiwix updated to 1.1.0
- IP addresses now show in the banner
- Added ability to clear logs
- Includes working en-file_share
- Includes updated en-kolibri-index
- www.rachel.pi and www.rachel addresses added to Dnsmasq
- GPU memory split reduced to 16mb to free up memory
- Removed unused packages to free up space and reduce running services

Support

If you have any questions, comments, or requests please comment or post at the RACHEL forums at <http://community.rachelfriends.org/> or feel free to email me at James.Kainer@gmail.com

License

This is an unofficial image and is not supported by the RACHEL team. All code included is theirs and falls under their licensing.

- More info about RACHEL can be found at <https://worldpossible.org/rachel>
- Source code can be found at <https://github.com/rachelproject/>

This image contains Kolibri from Learning Equality Foundation.

- More info about Kolibri can be found at <https://learningequality.org/kolibri/>

This image also contains Kiwix-tools for Wikipedia

- More info about Kiwix can be found at <https://www.kiwix.org/en/home/>