

# Yocto Build Instructions for Wi-Fi Extender in Turris Omnia



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## Host Setup

The OpenEmbedded build system should be able to run on any modern distribution with the following versions for Git, tar, and Python.

- Git 1.7.8 or greater.
- tar 1.24 or greater.
- Python 2.7.3 or greater excluding Python 3.x, which is not supported.

Note: You should also have about 50 Gbytes of free disk space for building images.

## Ubuntu and Debian

The essential packages you need for a supported Ubuntu or Debian distribution are shown in the following command

```
$ sudo apt-get install make gcc g++ diffstat texinfo chrpath gcc-multilib git gawk build-essential autoconf libtool libncurses-dev gettext gperf lib32z1 libc6-i386 g++-multilib python-git
```

## Building

In order to use Yocto build system, the repo tool must be properly installed on the machine.

## Repo setup

In order to install Repo make sure you have a /bin directory in your home directory and that it is included in your path

```
$ mkdir ~/bin
```

```
$ PATH=~/bin:$PATH
```

Download the repo tool and ensure that it is executable

```
$ curl http://commondatastorage.googleapis.com/git-repo-downloads/repo > ~/bin/repo
```

```
$ chmod a+x ~/bin/repo
```

**Note:** it is also recommended to put credentials in .netrc when interacting with repo.

A sample .netrc file is illustrated below

```
machine code.rdkcentral.com
```

```
login YOUR_USERNAME
```

```
password YOUR_PASSWORD
```

## Initilaizing the Build Environment

To build, follow below instructions

```
$ mkdir <workspace dir>
$ cd <workspace dir>
$ repo init -u https://code.rdkcentral.com/r/reference/manifests/ -m rdkb-turris.xml -b master
$ repo sync -j4 --no-clone-bundle
$ source meta-turris/setup-environment (Select option turris.conf)
$ bitbake core-image-minimal
```

Note. The kernel Image and root filesystem will be created under `./build-turris/tmp/deploy/images/turris` folder

NOTE: Above information is for build Gateway image. To build Extender image, please see [Wi-Fi Extender Features](#)