

Kendryte RISC-V GNU Compiler Toolchain (Ubuntu)

Install the packages

```
sudo apt-get install autoconf automake autotools-dev curl libmpc-dev libmpfr-dev libgmp-dev gawk build-essential bison flex texinfo gperf libtool patchutils bc zlib1g-dev libexpat-dev
```

Get the gnu-toolchain

```
git clone --recursive https://github.com/kendryte/kendryte-gnu-toolchain
```

Installation (Newlib)

To build the Newlib cross-compiler new to add the executable to \$PATH

1. `$ echo $PATH`
2. `cd ~/`
3. `vim .bashrc` or other text editor than vim
4. Add the end of the file append `PATH=$PATH:/opt/kendryte-toolchain/bin`
5. Source your .bashrc, type `source ~/.bashrc` and check with `$ echo $PATH`
If everything went well you should see in the output `.../x86_64-linux:/opt/kendryte-toolchain/bin`

Add folder and change permissions

1. `cd /opt`
2. `sudo mkdir kendryte-toolchain` - if there is not already existing directory
3. `sudo chmod 777 kendryte-toolchain`
4. `cd` into the kendryte-gnu-toolchain you downloaded

5. Execute `./configure --prefix=/opt/kendryte-toolchain --with-cmodel=medany --with-arch=rv64imafc --with-abi=lp64f`
6. In no errors then type `make -j8`