



Ecole d'ingénieurs et d'architectes de Fribourg
Hochschule für Technik und Architektur Freiburg

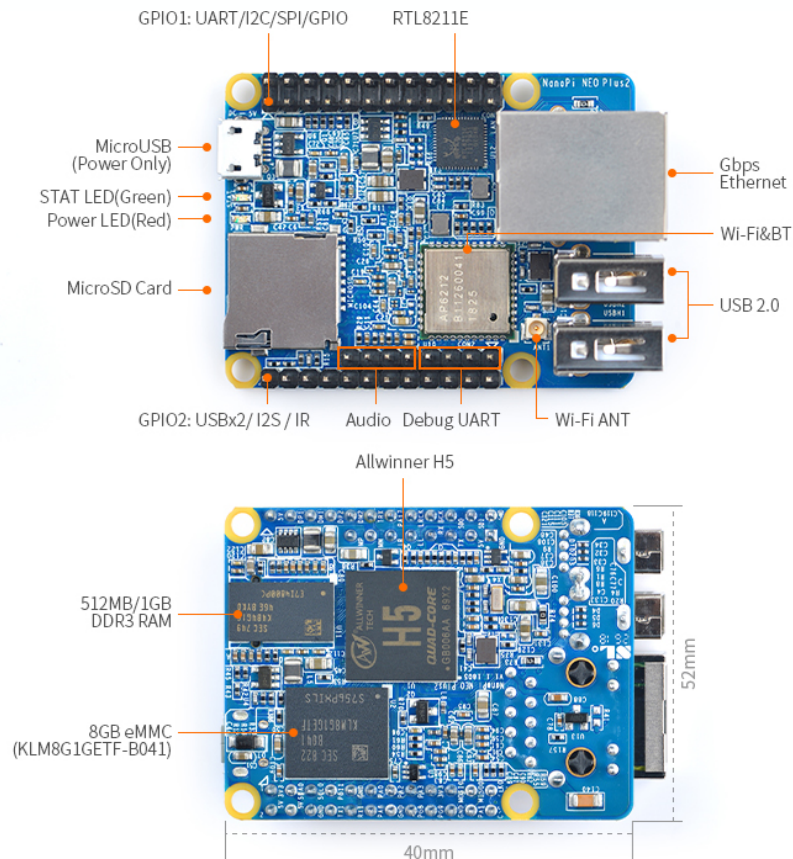
1 Install SDCard and check the cross-compiler

References

[1]: wiki.friendlyarm.com/wiki/index.php/NanoPi_NEO_Plus2

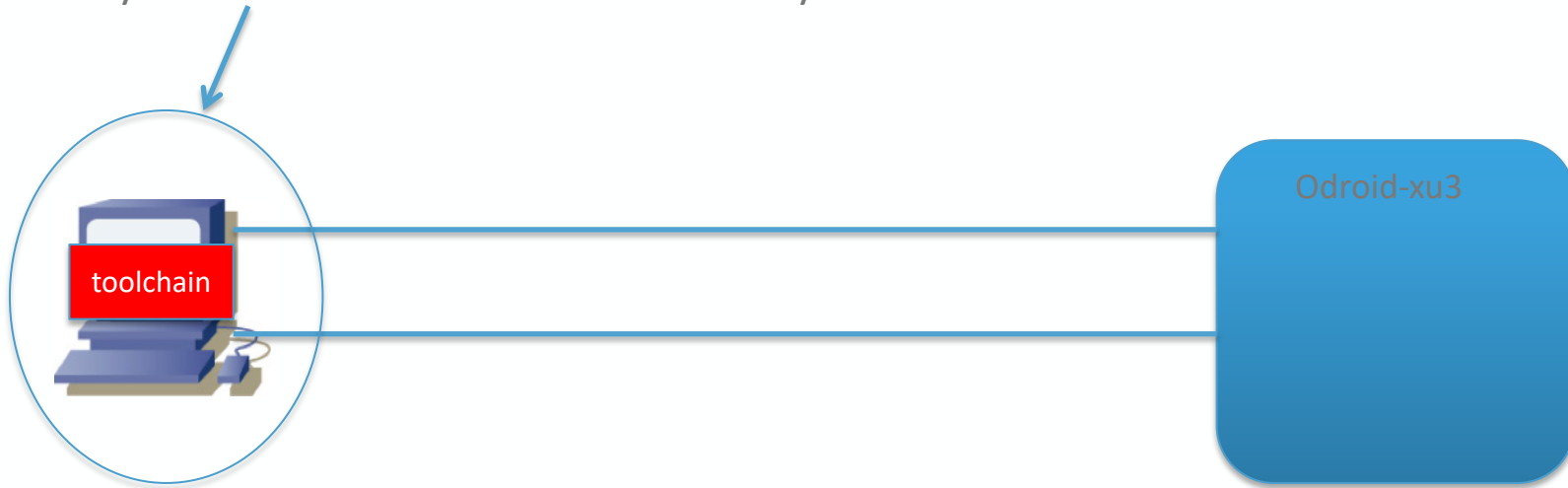
[2]: buildroot.uclibc.org

[3]: <https://gitlab.forge.hefr.ch/embsys/linuxenv.git>



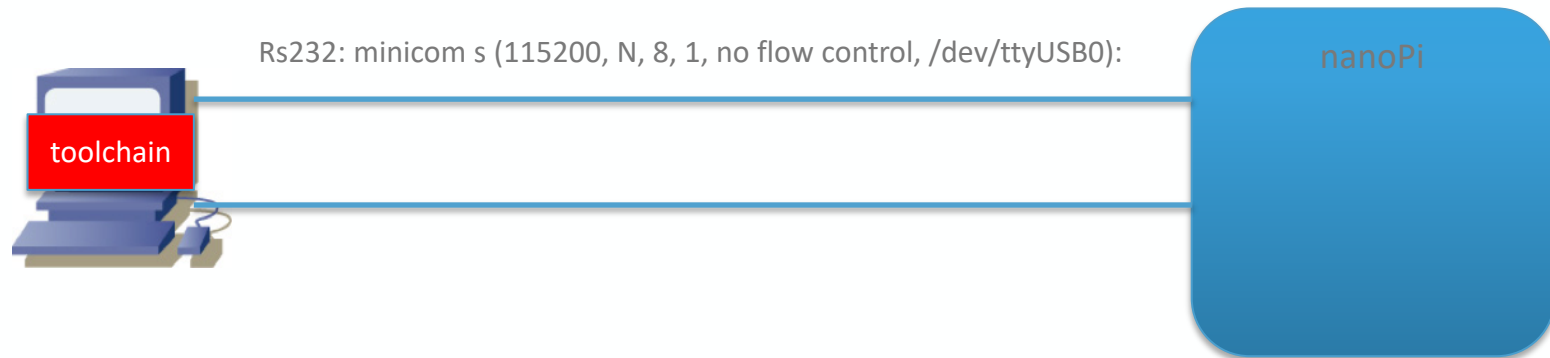
Install the environment

- You can use the virtual machine lmi-csel1-2021
- Or you can install the environment on your distribution



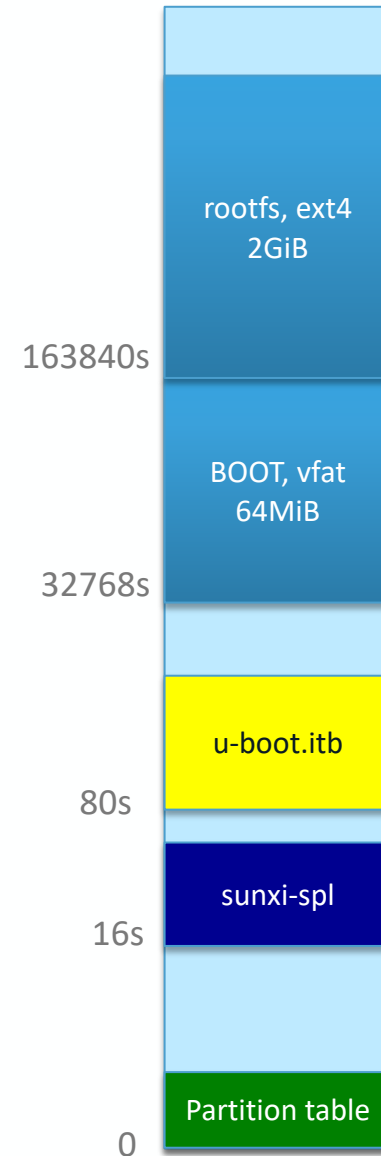
Start nanoPi

- Connect nanoPi to your computer
- Start minicom –s // check the baudrate, ...
- Start nanoPi



Question 1: Generate SDCard

Write a script which generate the SD-Card with this mapping



Question 2: Check cross-compilation

Write a hello-world program, cross-compile this program and check it on the NanoPi

Remark:

If the cross compiler don't find include files, you can use this command in order to find the path used by the cross compiler:

```
aarch64-linux-gnu-gcc -E -Wp,-v -xc /dev/null  
/home/schuler/workspace/nano/buildroot/output/host/opt/ext-toolchain/bin/../lib/gcc/aarch64-  
linux-gnu/8.2.1/include  
/home/schuler/workspace/nano/buildroot/output/host/opt/ext-toolchain/bin/../lib/gcc/aarch64-  
linux-gnu/8.2.1/include-fixed  
/home/schuler/workspace/nano/buildroot/output/host/opt/ext-toolchain/bin/../lib/gcc/aarch64-  
linux-gnu/8.2.1/../../../../aarch64-linux-gnu/include  
/home/schuler/workspace/nano/buildroot/output/host/aarch64-buildroot-linux-  
gnu/sysroot/usr/include
```