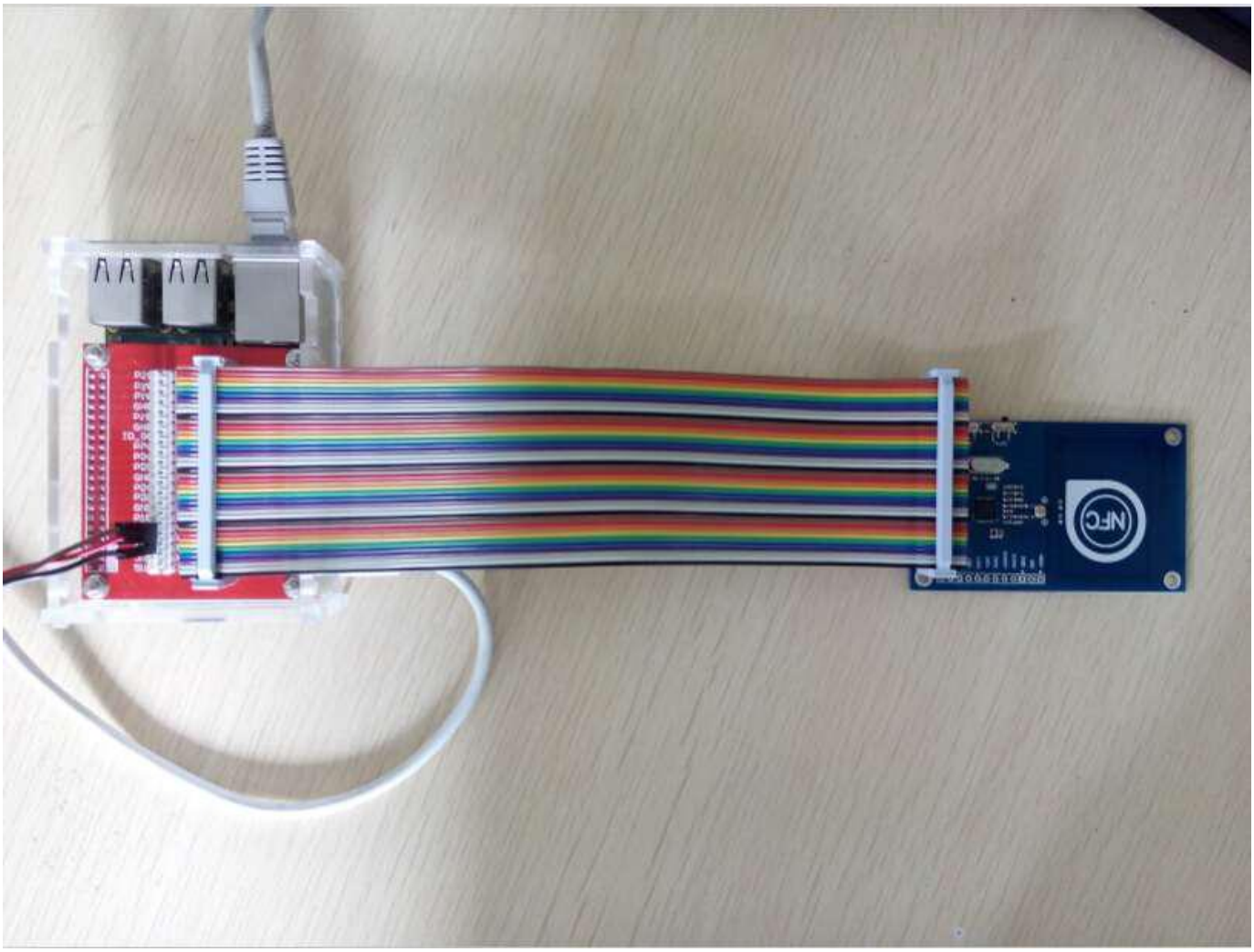
7 PN532 RFID module

1. Circuit connection

In connecting the modules, align the PNC module bottom to the black one of the wires. The module is connected to the Raspberry Pi through the SPI bus, so the working mode of the NFC module need to be set as SPI, that is: SET0--L SET1--H



2. Software package for the installation

```
sudo apt-get update
sudo apt-get install libusb-dev libpcsclite-dev
```

3. Download and unzip libnfc source code package

```
cd ~
wget http://dl.bintray.com/nfc-tools/sources/libnfc-1.7.1.tar.bz2
tar -xf libnfc-1.7.1.tar.bz2
```

4. Compilation and installation

```
cd libnfc-1.7.1
./configure --prefix=/usr --sysconfdir=/etc
make
sudo make install
```

5. Modify configuration file

cd /etc

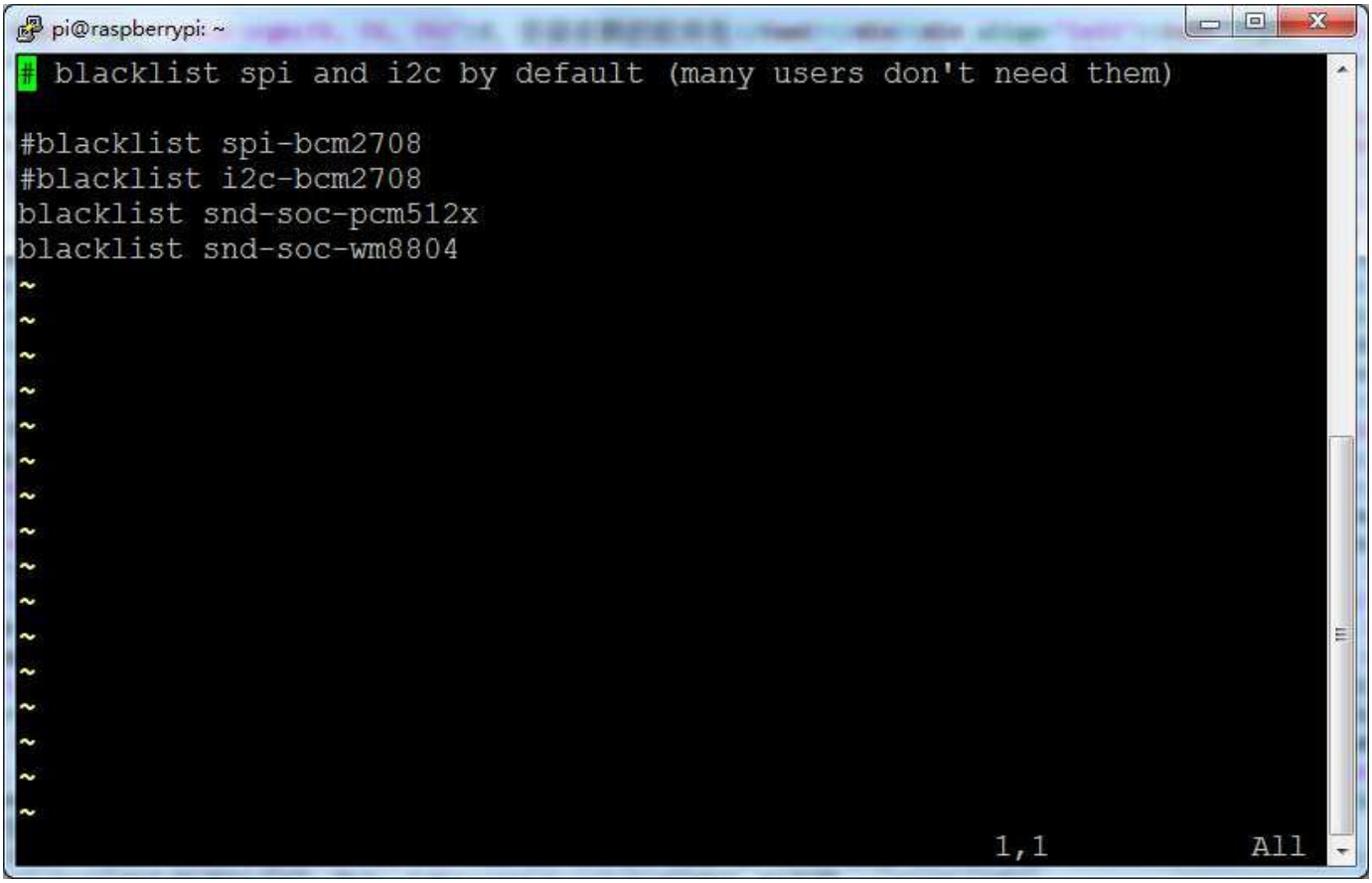
sudo mkdir nfc

sudo nano /etc/nfc/libnfc.conf , copy below content to file /etc/nfc/libnfc.conf:

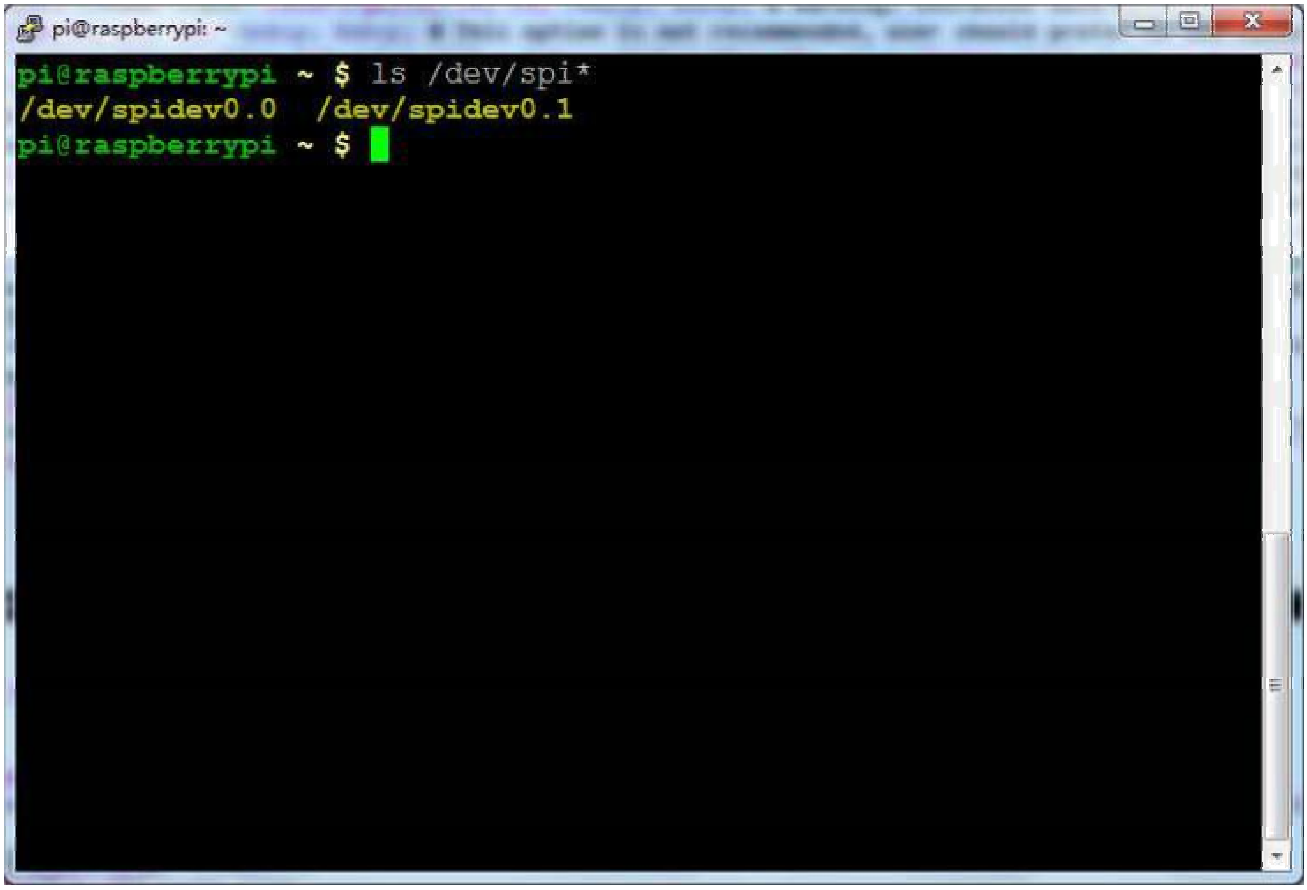
```
# Allow device auto-detection (default: true)
# Note: if this auto-detection is disabled, user has to set manually a device
# configuration using file or environment variable
allow_autoscan = true
# Allow intrusive auto-detection (default: false)
# Warning: intrusive auto-detection can seriously disturb other devices
# This option is not recommended, user should prefer to add manually his device.
allow_intrusive_scan = false
# Set log level (default: error)
# Valid log levels are (in order of verbosity): 0 (none), 1 (error), 2 (info), 3 (debug)
# Note: if you compiled with --enable-debug option, the default log level is "debug"
log_level = 1
# Manually set default device (no default)
# To set a default device, you must set both name and connstring for your device
# Note: if autoscan is enabled, default device will be the first device available in device list.
device.name = "Itead_PN532_SPI"
device.connstring = "pn532_spi:/dev/spidev0.0:500000" 6, the default SPI driver
```

settings of the Raspberry Pi if in off state, we need to turn it on.

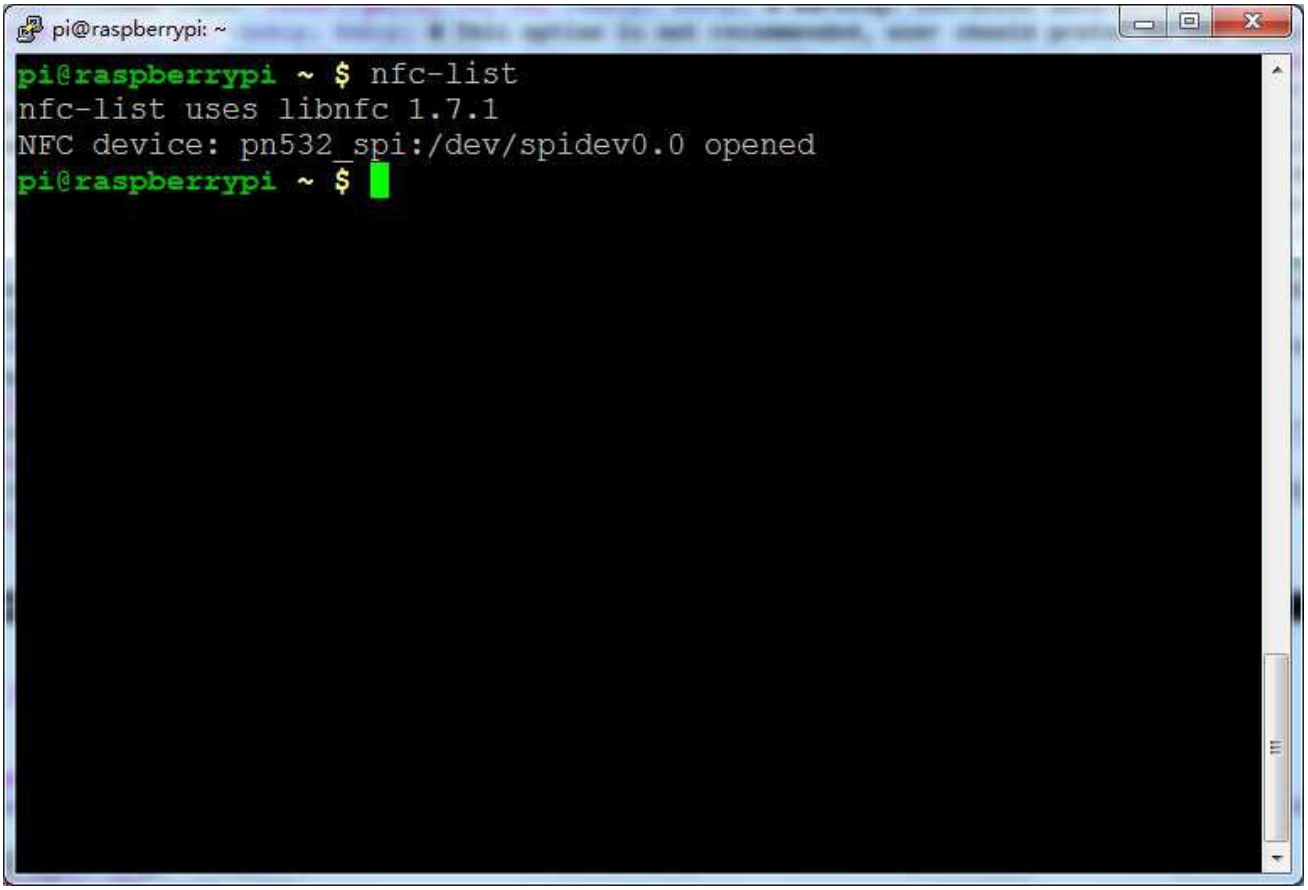
In sudo vi /etc/modprobe.d/raspi-blacklist.conf , before “blacklist spi-bcm2708”, add “#” and become “#blacklist spi-bcm2708”, as below pic.



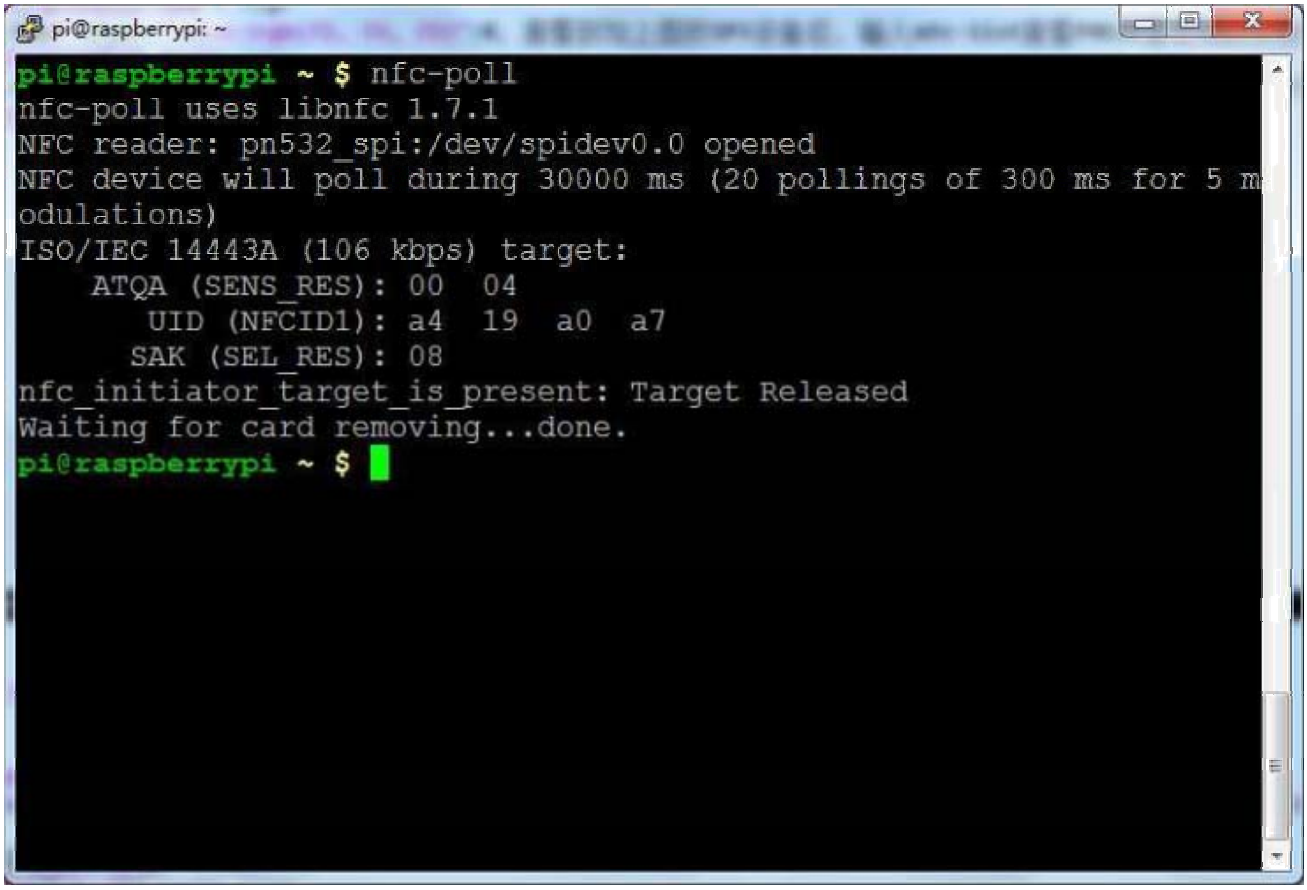
7. After configuration, sudo reboot to reboot the Raspberry Pi; ls /dev/spi* to find the device, as below pic:



8. After SPI device is found, enter nfc-list to check whether PN532 is successfully recognized, as below pic:



9. After module is successfully recognized, you can begin the RFID experiment. Enter nfc-poll to begin RFID procedure:



10. PN532 module RFID experiment is completed.