Research Design Lab

RDL RFID SHIELD FOR RASPBERRY-PI

Contents:

Introduction:

This is a low frequency (125Khz) RFID Reader With serial Output with range 0-10cms. The RFID Reader is designed specifically for low-frequency (125 kHz) passive tags. Frequency refers to the size of the radio waves used to communicate between the RFID system components.

Features:

- Low-cost method for reading passive RFID tags.
- Built in Antenna
- On-Board Power LED
- Current Requirement <120mA
- Detecting Range 0-10cms.
- High quality PCB FR4 Grade with FPT Certified.

Compatibility:

- Raspberry Pi
- Raspberry Pi 2
- Raspberry Pi Model B+
- Raspberry Pi zero

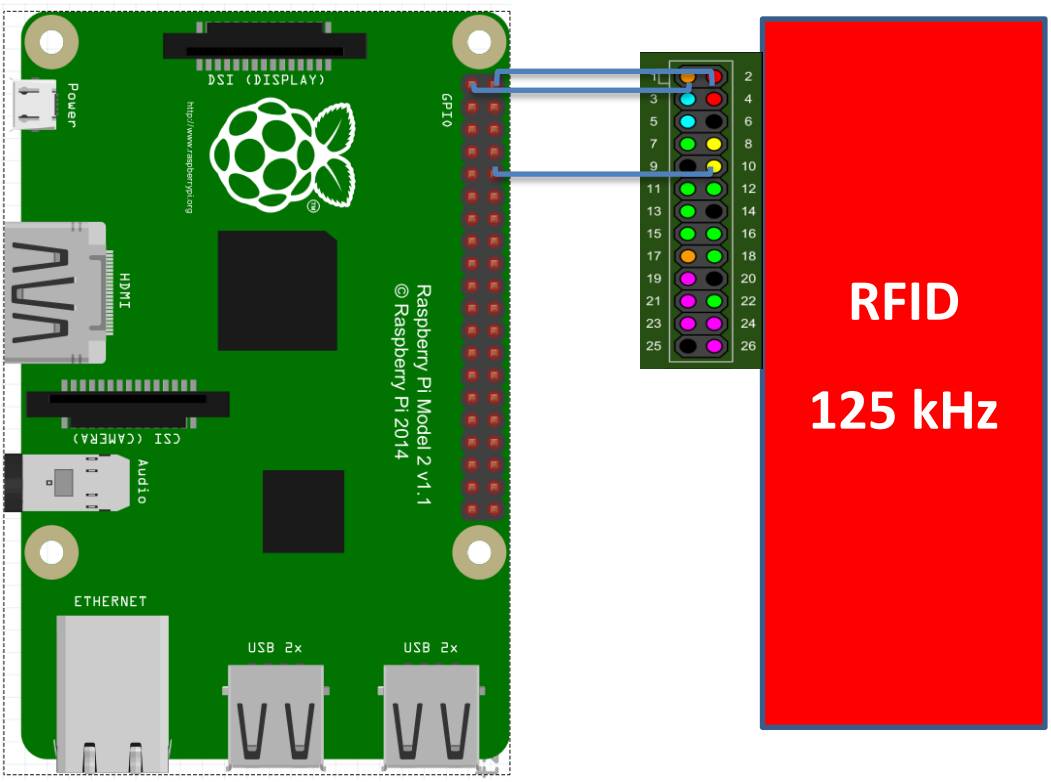
Package contains:

- RFID Shield Compatible for Raspberry Pi + 2 RFID Card

  Note1: The Raspberry Pi in the picture above is just for reference , it does not include in the package.

  Note2: Base board is only used for soldering the RFID shield and establishing the respective connectivity with Raspberry Pi I/O pins.

Internal Block connections:



Installing pyserial package:

First download and install python serial package called pyserial from the below site.

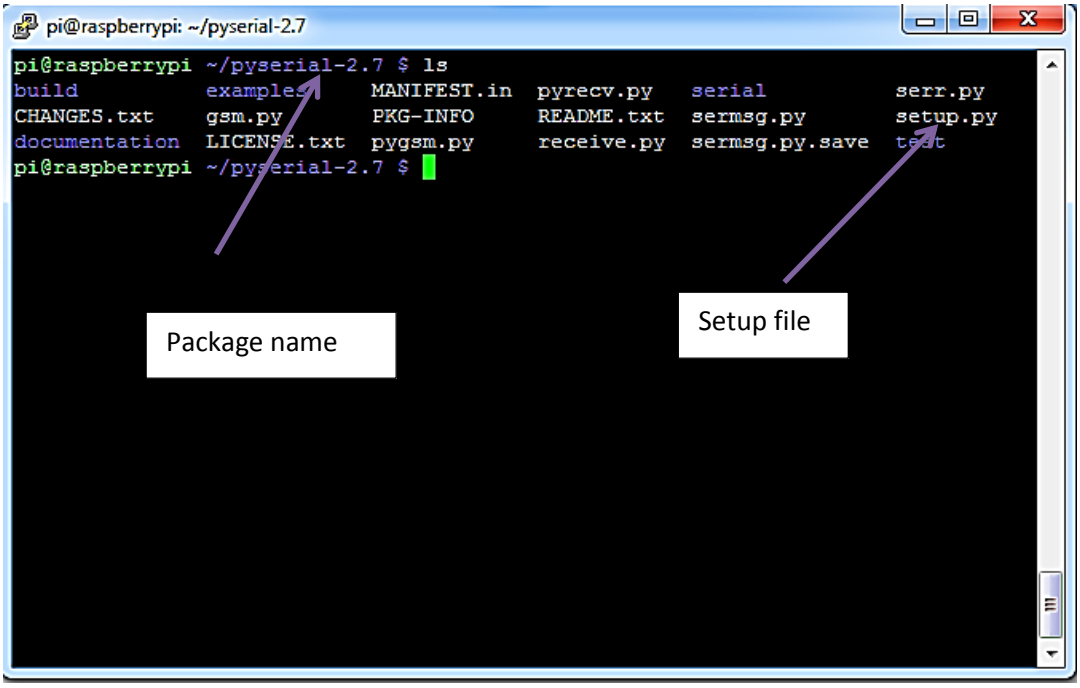
https://pypi.python.org/pypi/pyserial

unzip the file and enter into that folder using command

cd "package name"

inside the package name there will be setup file, called setup.py. install the software by typing following command.

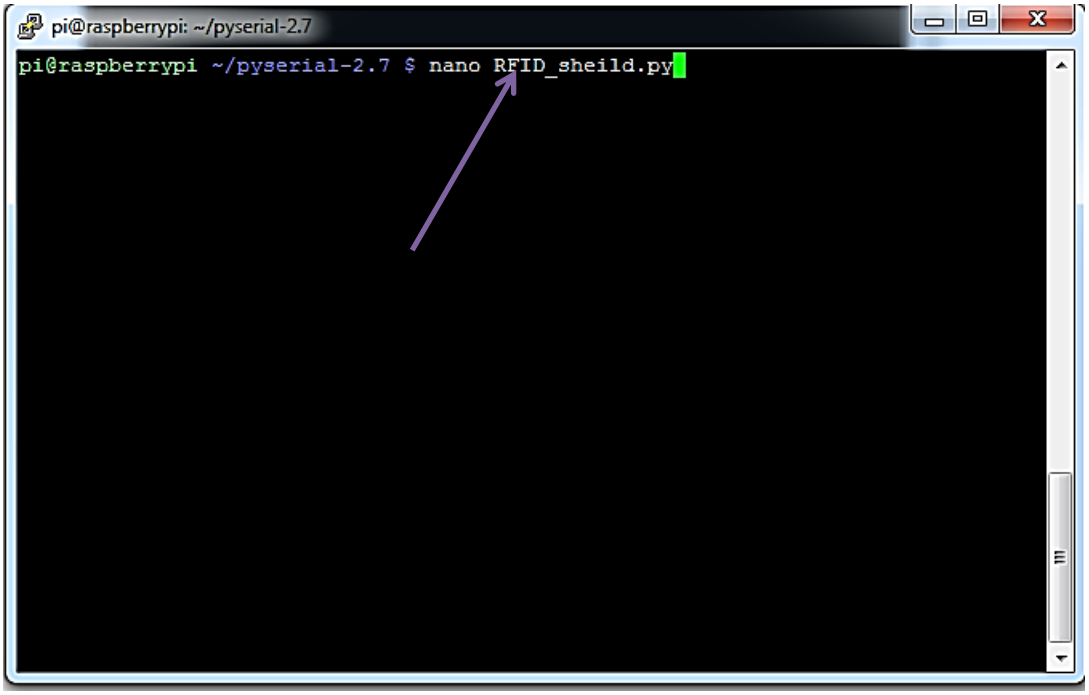
sudo python setup.py install



Sample Python script:

In raspberry pi open nano editor by typing following command

nano filename.py



Type the following code in the nano editor

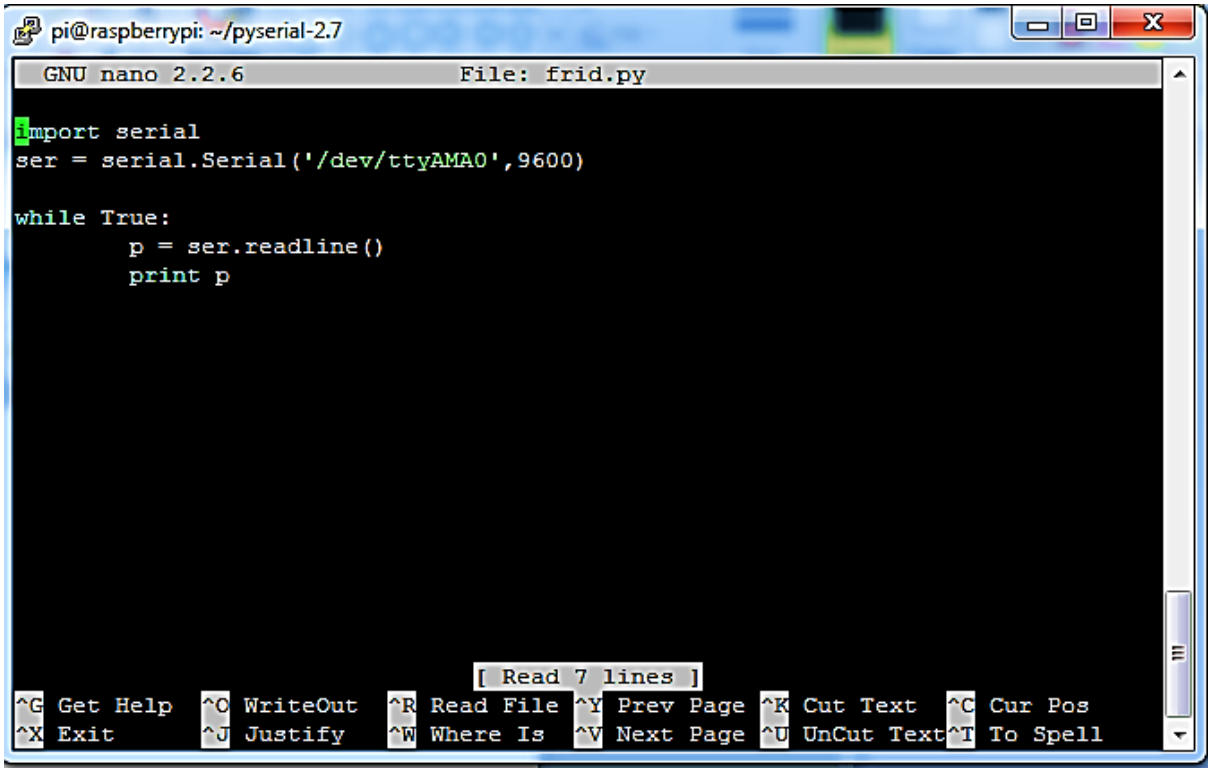
Import serial

Ser = serial.Serial('/dev/ttyAMA0',9600)

While True:

P = Ser.readline()

Print P

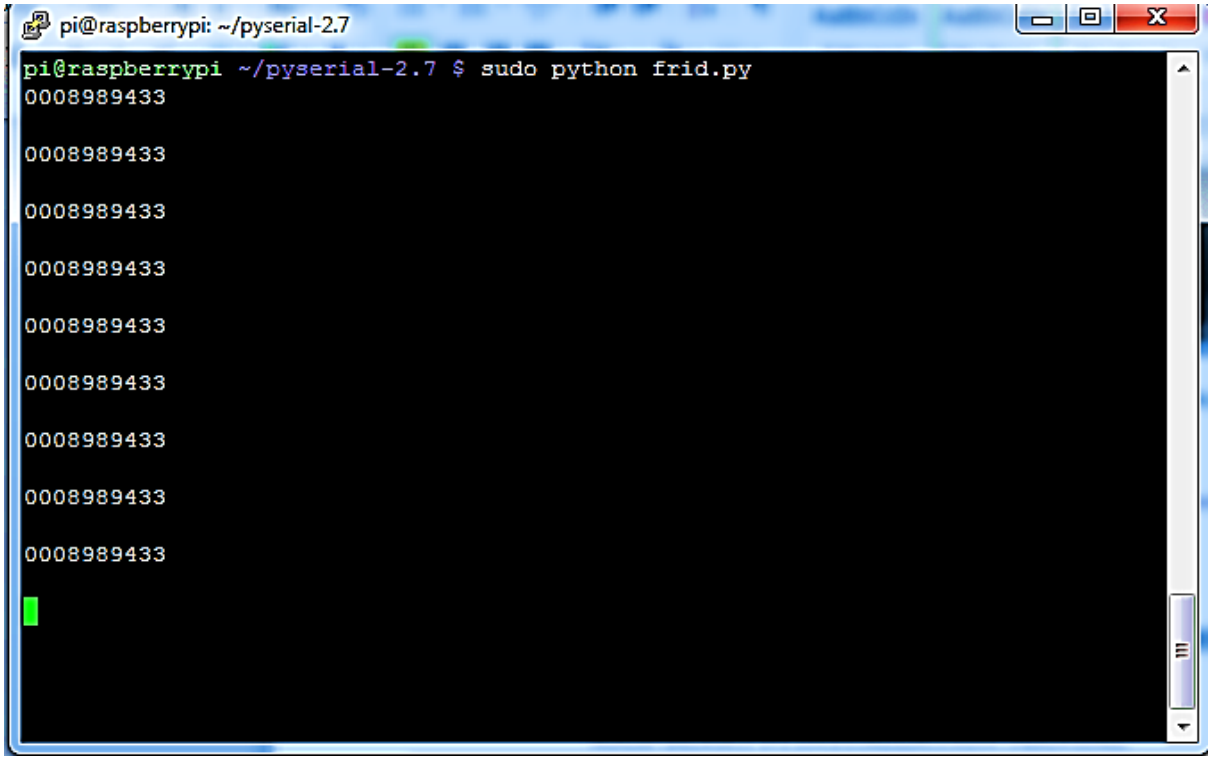


The above code reads the RFID card value connected to UART port i.e 8. As shown on the below figure.

Run the above code by following command

sudo python filename.py

next when we bring RFID card near to RFID reader Raspberry pi displays card information in its serial window as shown in the figure.


pi@raspberrypi: ~/pyserial-2.7
pi@raspberrypi ~/pyserial-2.7 $ sudo python frid.py
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