Raspberry Pi Laptop Connection

The Raspberry Pi is basically a miniature Linux-based computer. It has an ARM processor on it.

Note: We assume that you Downloaded and installed Pi system image on MicroSD as explained in the Project- A2, Task4, section b

1. Insert the MicroSD card.

Remove the MicroSD from its SD-sized adapter, and insert into the MicroSD slot on the bottom side of the of the motherboard.



2. Connect the Raspberry Pi 3 to power.

- Attach the microUSB end of the power cable to the microUSB socket on the Pi.
- *If the other end of the power cable is a USB connector (e.g., for the kit)*, attach to a USB socket (e.g., on your laptop).
  If the other end of the power cable is a power block, attach to a power socket.

Look for this:

- ❑ A red light should appear, indicating that power is connected to the Pi.
- ❑ A green light should flash, indicating that the Pi operating system is booting.

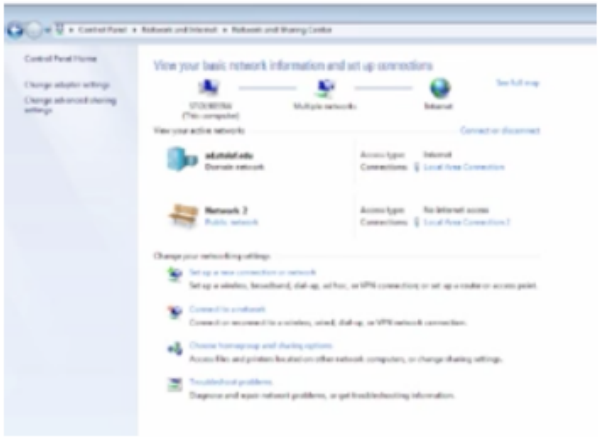
3. Attach your laptop to the Pi.

- If your laptop *has an ethernet port*, attach the ethernet cable between that laptop ethernet port and the Pi's ethernet port.
- If your laptop *doesn't have an ethernet port*, connect the USB-to-ethernet dongle to a USB port on your laptop, then attach the ethernet cable between that dongle to the Pi's ethernet port


4. Verify an Ethernet network connection to the Pi.

Windows:

- From the Start menu, select Control Panel, then Network and Internet
- Once your laptop connects to the Pi (this may take a minute or so), you may see a popup window about selecting a network location. You can select Home Network or choose the red X at the top right of the window to exit that popup.



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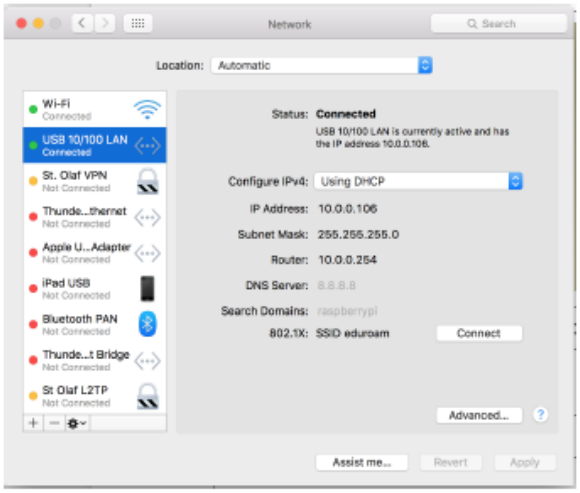
Linux:

- After a moment, a two-arrow icon should show in the upper right toolbar:

This indicates a wired connection to the Pi.

Macintosh:

- Start up to System Preferences, then choose Network.
- *If using an ethernet port on your Mac*, the Ethernet port should move to the top and show that it is connected.
- *If using the kit's USB-Ethernet dongle*, "USB 10/100 LAN" should move near the top of list and show a green connection status (image below). The connection may take a minute or so to complete. **Note for dongle only**: If "USB 10/100 LAN" doesn't appear in the list, download the driver for "**SKU 202023**" from http://www.cablematters.com/cs-Downloads.aspx



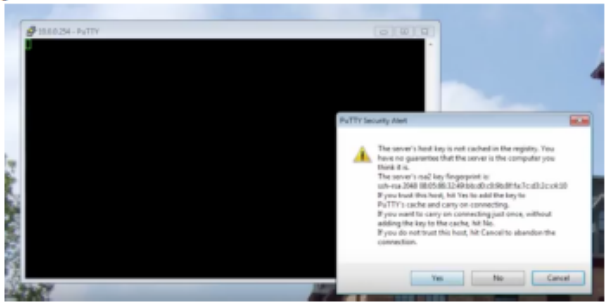
5. Log into the Pi using SSH.

Note: Please do not change the password!

Windows:

- Open the Putty application (or another SSH client) and enter the IP address `10.0.0.254` , then login with
  User: `pi`
  Password: `raspberry`

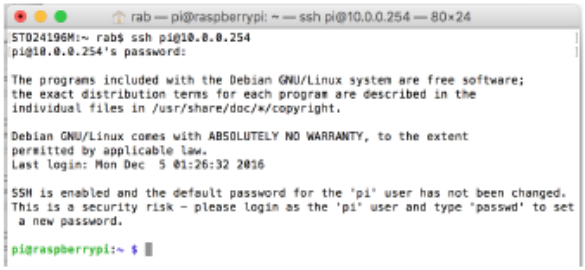
Note: If this is your first SSH session to this Pi, a popup will appear. Click on Yes to indicate that you trust the Pi.



Macintosh, Linux:

- Open the Terminal application
- Enter the command
  `ssh pi@10.0.0.254`
  Password: `raspberry`

Note: If this is your first SSH session to this Pi, respond Yes to indicate that you trust the Pi.

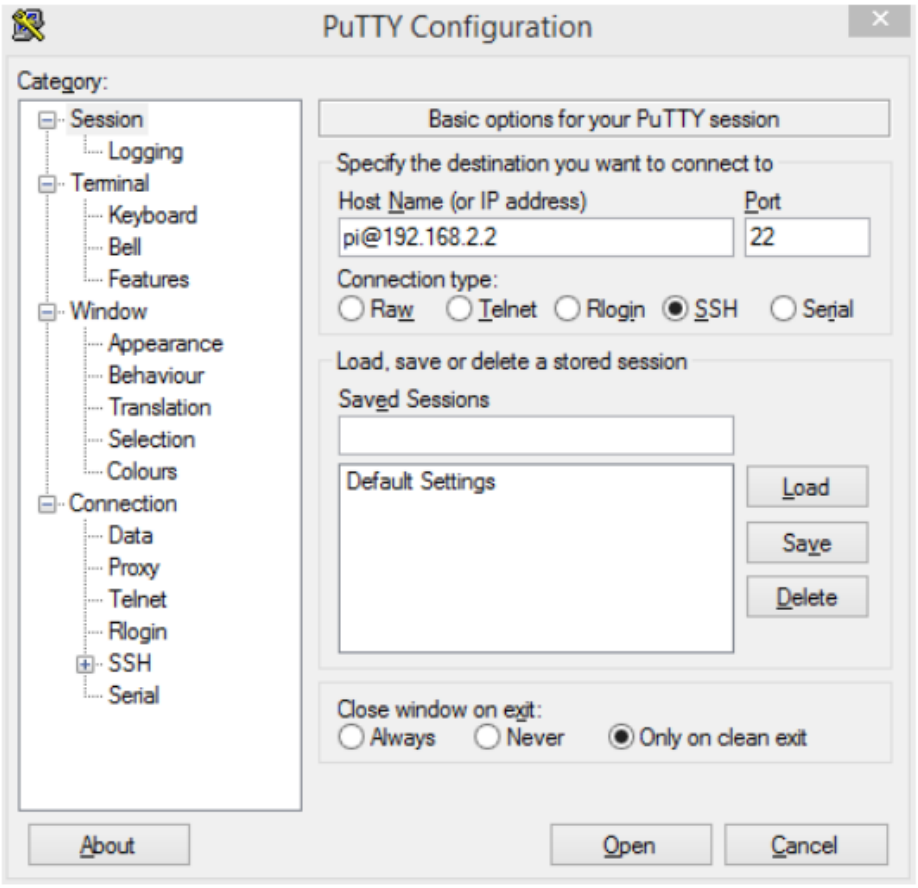


- **See the Appendix if you do not have Putty application installed in your Windows machine.**

Appendix

PuTTY Tutorial for Windows

1. Download the PuTTY installer at http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html .
2. Install PuTTY from the downloaded .exe file.
3. After installation, you must be able to find the PuTTY program in the Start Menu.
4. In the new PuTTY window that opens, under "Host Name (or IP address)" type in pi@192.168.2.2 (the IP address of the Raspberry Pi) in the host name field and make sure the SSH bubble is clicked so it looks like the picture below:



a. If all is well, you will be prompted for your password. When a password is requested (almost immediately) enter: "`raspberry`", which will be displayed as: "`*********`" or nothing at all.

b. If successful, a new line will appear in the Pi's terminal window containing the Pi's command prompt, which will include the Pi's hostname: "`rpi`" as well as other information as shown below: