

# Lab 0: Building Your PI

RED BLUE

Skill Introductory

Time 30 Minutes

You Need A new Raspberry PI kit.

You Get An complete and functional Raspberry PI.

Step

1

Are You Red or Blue?

If you got your Raspberry PI kit from SecSIG, it came in a red or blue bag.

The red bag is a Raspberry PI Zero Kit, and the blue bag is a Raspberry PI 3 B+ kit. From here on out, we'll just refer to these as Red and Blue.

Some of the labs may specifically be recommended for either or both of these kits. Check out the top right corner of each lab to see if the lab is right for your kit. If you brought your PI with you, make sure you know which one you have.

Step

2

Do You Have Everything You Need?

To get started, you first need to make sure you have all of the hardware.

- A Raspberry PI
- A Case
- A Power Supply (2 amp Micro USB)
- A Micro USB cable to go from the Raspberry PI to the Power Supply
- A Monitor that supports HDMI
- A HDMI cable that connects from the Raspberry pi to the Monitor
- A USB Keyboard / Mouse
- A 8Gb Micro SD Card with Noobs Software

Optionally, you may have or need the following:

Red Kits (Raspberry PI Zero) may have a USB to MicroUSB adapter which can help plug in the USB Keyboard

Blue Kits (Raspberry PI 3 B+) may have an Ethernet port and cable which can be used to plug into an ethernet network.

If you have a Micro SD Card, but need the Noobs software, see the lab assistant.



## Step

# 3

### Assemble Your PI

Open the case and look at how the Raspberry PI likely fits in.

Cases vary, so this isn't documented here. But if you have any problems, the lab assistant can help.

Once you have opened the case, place your Raspberry PI inside the case.

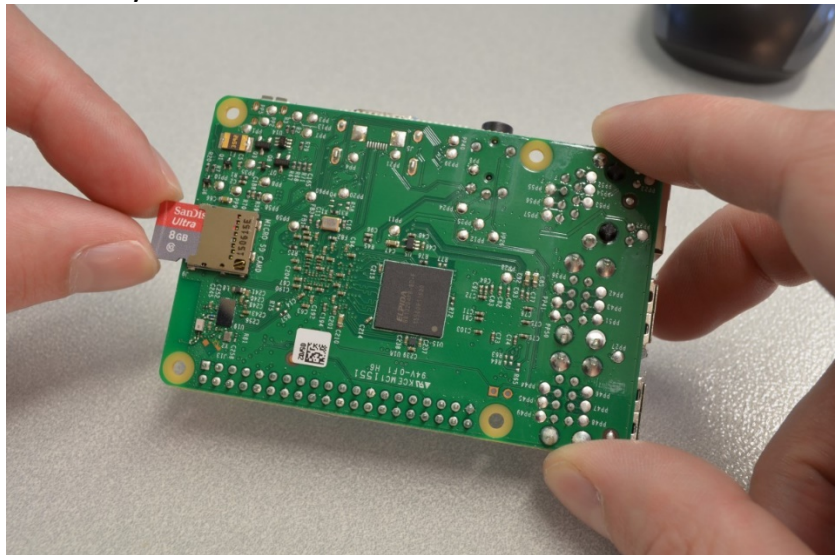
There may be screws and heat spreaders with your case.

If these are in your kit, carefully place them in the appropriate location.

Close the case.

Next you need to place the MicroSD Memory Card into the Raspberry PI.

The MicroSD slot is on the bottom of the Raspberry PI. The card should only go into the slot in one way. If you're having to push, the MicroSD card is probably orientated incorrectly.



Next we will plug in the cables.

## Step

# 4

### Plug In Your PI

Now that you have all of the hardware assembled, it's time to plug everything in.

First, plug in the keyboard / mouse. For Red Kit users, you may need an adapter depending on your setup.

Next, plug in the HDMI cable to the Raspberry PI and the monitor. Make sure your monitor is on and the HDMI source is selected.

Optionally, if you have a Blue Kit, you may want to plug in an ethernet cable.

Last, plug in the Raspberry PI's power cable. Make sure that if there is a power switch, it is set to on.



## Raspberry PI Village Building Your PI



Okay, your PI should start up. If you see something come up on the screen, you're probably ready to move forward. If you're having any problems, ask the lab assistant.

Step  
**5**

Next we'll start your Raspberry PI for the first time!  
The Noobs software that is on your MicroSD card is meant for first time users, but it needs to be setup the first time it is used. In this step, we'll do that.

The first thing the Noobs software will do is setup the MicroSD card by partitioning it into three separate 'partitions'. This is to help keep things organized and it will be important to remember this in future labs as you'll be using these different partitions for specific purposes.

The first partition is where your Raspberry PI operating system is kept. This will be where important things, like the boot files, will be kept. You may interact with this in some of the intermediate and advanced labs.

The second partition is the Recovery partition. This is here in case you get in trouble. It can help you get things back up and running if something breaks. For now, we're not going to work with this.

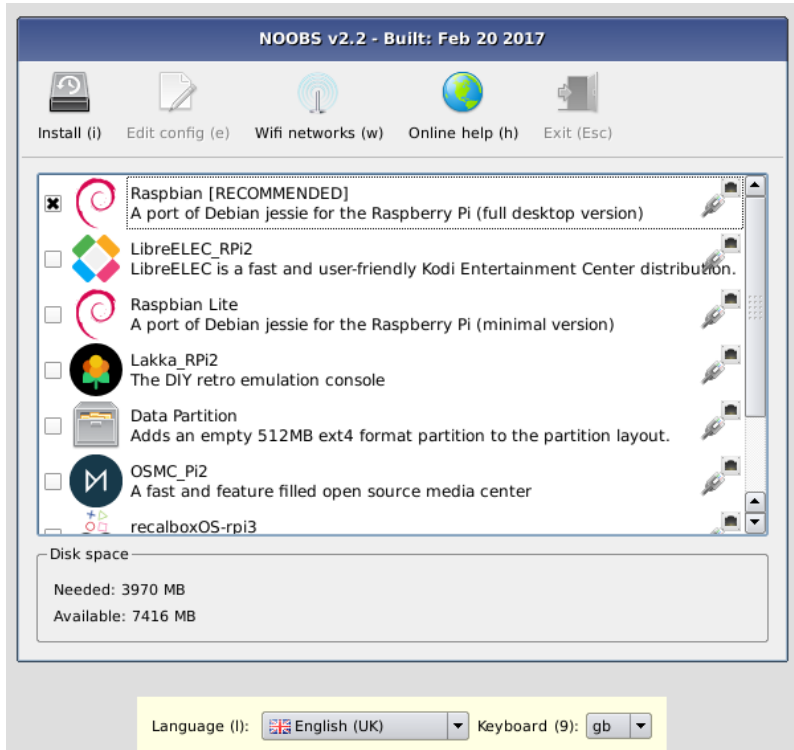
The third partition is all for you. It is where we're going to keep your stuff. We'll definitely work with this as we go along.



# Raspberry PI Village

## Building Your PI

As Noobs get's started, it's going to ask what operating system you want to install. For our lab, we're going to use Raspbian. Remember, there are other choices and you can come back later to try the others out by erasing and reloading Noobs, or by replacing the MicroSD memory card to try out something new without erasing your Raspbian installation.



It's also worth noting that you may have a better experience if you select English (US) for both the language and keyboard if you are in the US.

Just wait for the installation to complete and you're done!

# DONE!

