

## Installing an operating system on your Raspberry Pi

We will begin using the Raspberry Pi on Sept 17, so we need to get ready. The first step is to install the operating system on the SD card included in your kit. **You must complete this task before class on Sept 10. If you are unable to do this on your own, bring your SD card to class on Sept 10, and we'll help you at the end of that class.**

Most general purpose processors require an operating system to manage their services, and the Raspberry Pi is no exception. We must install the Pi's operating system before we can use it. Because the Raspberry Pi uses an SD card instead of a hard drive for its main memory, we will install the operating system on an SD card. Any formatted, class 4 (or higher), 4G minimum, SD card will do.

We will use the Occidentalis operating system in this class. Occidentalis (from Rubus Occidentalis--- the Latin name for raspberry), is Adafruit's version of Raspbian (i.e., the Linux operating system for the Raspberry Pi) configured for hardware support. The instructions below are a summary of those provided in [Adafruit's Raspberry Pi Tutorials, Lesson 1](#) for Windows platforms. If you are using a Mac or a Linux platform to write to your SD card, you need to go to the source, Adafruit's Raspberry Pi Tutorials [Lesson 1](#), for instructions.

Before beginning you will need a computer (laptop or desktop) with a built-in SD card reader or an add-on USB SD card reader.

### Instructions:

1. Download the zip file containing Occidentalis v0.2 from [Adafruit](#). Checking the *SHA1* of your Occidentalis zip file will assure that your download is good. If you want to do this (not usually required), download the [File Checksum Integrity Verifier \(FCIV\) utility from Microsoft support](#) and follow these [instructions](#).
2. Unzip Occidentalisv02.zip to obtain the Occidentalis image file.
3. To write the Occidentalis image (Occidentalis\_v02.img) to your SD card, download one of two freeware programs: [Win32 Disk Imager](#) or [Fedora ARM Installer](#) and install it on your computer. I used Win32 Disk Imager.
4. Insert your SD card into your card reader, and start the card writer application installed in step 3 above. RUN THE CARD WRITER APPLICATION AS ADMINISTRATOR. Designate Occidentalis\_v02.img as the image to write and the SD card drive as the destination, and then select *write* (or *install*, depending on the application).
5. The write operation should take 5 to 10 mins.
6. When you insert your SD card into your Pi and connect the power cable, you should see the Pi's ACT light flash on and off indicating that the Pi is reading from the SD card. This doesn't guarantee that your card is setup properly but it's a good sign.

