GoPiGo and Raspberry Pi – SSH Connection Guide

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Synopsis: This is a brief guide that will cover methods to remotely access the Pi using secure shell (ssh) for Mac, Windows and Linux. This network should already have been set up, but this guide should prove useful as a reference.

Intro: Most access to Linux machines, such as the Raspberry Pi, is done remotely for administrative tasks. This is because a large portion of Linux servers don’t have a graphical user interface (GUI). This is where ssh, or secure shell, comes in. ssh is a protocol that gives the user access to the Linux systems’ command line interface (CLI). From the CLI, the user can issue many commands, perform administrative tasks, edit files, update the system and even browse the web! For the 252 Robotics project, we will need to develop a few crucial Linux skills. But first, let’s get remote access to the system.

1. Windows
   1. For Windows, download a program called PuTTY from: <http://the.earth.li/~sgtatham/putty/latest/x86/putty.exe>
   2. PuTTY is used for ssh, telnet, rlogin and serial access. We will use it to gain ssh access.
   3. In the ‘hostname’ box, type the IP Address given to you by your professor. You can also type a name into the box in the bottom of the screen and select ‘save’ to save these settings, so as to not type the IP address each time. A good name to save it as would be your group name, such as JakeJim252, etc.
   4. Click ‘open’
   5. There may be a warning that pops up warning about an RSA key. Select ‘yes’ or ‘continue’
   6. In the black window that opens up, type the default access credentials, which are username “pi” and password “raspberry” (without the quotes)
   7. You are now logged into the Raspberry Pi remotely using ssh!
2. Mac OS X
   1. For Mac, you can use the built-in application called ‘Terminal’ to connect to the Pi.
   2. Using your applications menu, find the ‘Terminal’ icon and click on it.
   3. In the window that opens, issue the following command using the IP address of the Pi given to you
      1. ssh [pi@192.168.1.###](mailto:pi@192.168.1.###)
      2. You may see a warning about RSA. Type yes to continue.
      3. Enter the default password “raspberry” (without the quotes) when prompted
      4. You are now logged into the Raspberry Pi remotely using ssh!
3. Linux
   1. For Linux, you will use a terminal window to access the Pi, almost identical to Mac OS X (OS X and Linux are built from the same branch. Research this if you are curious!)
   2. Using the menu available to your distribution, open a terminal. The keyboard shortcut for this on most \*buntu systems is ctrl+alt+T
   3. In the window that opens, type the following command using the IP address of the Pi given to you
      1. ssh [pi@192.168.1.###](mailto:pi@192.168.1.###)
      2. Enter the default password “raspberry” (without the quotes) when prompted
      3. You are now logged into the Raspberry Pi remotely using ssh!