# Working from home

There are a couple options when working from home. If you are working on a Mac or Linux environment you can follow the instructions at the [GitHub repo for this lab](https://github.com/jmcda001/UCRCS120B_AVRTools) to install the toolchain on your system. If you are working on Windows, you can use [Atmel studio](https://www.microchip.com/mplab/avr-support/atmel-studio-7) once we are working on hardware, but will need to SSH into the school servers for the first labs. These instructions are for that:

1. SSH into the school server (bolt at the time of writing). This will require an SSH client, [Putty](https://www.chiark.greenend.org.uk/~sgtatham/putty/) is a simple client that will work. Connections instructions adapted from [here](https://support.rackspace.com/how-to/connecting-to-linux-from-windows-by-using-putty/):  
   
   1. In the **Host Name** field enter bolt.cs.ucr.edu
   2. Ensure that the connection type is set to SSH
   3. (Optional) In the **Saved Sessions** field, assign a name for this connection (such as UCR-SSH). Assigning a name saves time the next time that you use Putty.
   4. Click **Open**
   5. Accept the key
   6. If this is the first time that you have used PuTTY to log in to the school server with SSH, a warning similar to the following one displays:  
      
   7. If you are sure that you have entered the correct information, click **Yes**.  
      Subsequent connections do not show this warning because the host key is now cached in the registry of your local computer. You can expect to see that warning, however, if you connect to your server from a different computer.
   8. After you accept the warning, the terminal prompts you for your username (**netID**) and **password**.
2. Once you have logged in to <bolt>, you will need to SSH into a lab machine in WCH 136 (where the toolchain is installed)  
   $ ssh <netID>@wch136-#  
   Replace <netid> with your netID and # with the number for the machine you want to SSH into (02 - 30)
3. Now that you are logged in to a lab machine, you can use the tools as specified in the lab manual. You will be able to connect to GitHub as well.

This only works when working on software. You can do all of your testing here. However, when you try to program, it will attempt to write to a USB on the lab machine, not your home machine.