1. Installing GIT

- Navigate to https://git-scm.com/downloads
- Select your laptop/computer's OS to download the install manager
- Click on the downloaded install manager and navigate through the installation guide.
    - **REMEMBER** to select "Use Git from Git Bash only" while adjusting your PATH environment
    - Stick to the default options for the rest of the installation guide
- associate your submissions with your information:
    - $ git config --global user.name "John Doe"
      $ git config --global user.email johndoe@email.arizona.edu
- New to GIT? - http://try.github.io/

2. Setup PlatformIO

- Navigate to https://platformio.org/platformio-ide
- Select "Install for VSCode" and click "Download" once the page loads
- A new window should show-up with an install button for all OS. Select your OS from the dropdown and click Download.
    - Download the **STABLE** build only
- Once the Setup Manager downloads, click on it and navigate through the installation guide:
    - Suggestion: Create a desktop icon for easier access at a later stage
- Check "Launch Visual Studio Code" and click finish
- Once the Visual Studio Code launches, click on the 'extensions' icon on the left
- Search for PlatformIO IDE in the search bar and click on the green "Install" button on the search results
- When you see a "Reload" icon in green, click on it to resume the installation process.
- Once the installation is complete, you would get a message box "PlatformIO IDE has been successfully installed! Please reload window" . Click on "Reload Now"
- You would see another message that says "Extensions have been modified on disk. Please reload the window.". Click on "Reload Window"
- Once PlatformIO is successfully setup, you would see a tiny "Home Icon" at the bottom of the window.

3. Create a new Project

- Click on the "New Project" button on the home page and give your project a name.
    - Note: It is highly recommended that we name the project with the Lab Index, Eg: Lab 0, Lab 1 etc. so that it is easy to follow.
- Select the board from the dropdown. For this course/lab, we would select "Arduino Mega or Mega 2560 ATmega2560 (Mega 2560)" and click "Finish"

- Once the project is created, you would see paths to lib (libraries) and src (source codes) on the left side of the window.
- We are all set!! :)

4. Install Cisco Anyconnect VPN (Optional)

- You only need to do this if you are going to work and submit code to the repository from off-campus
- Go to https://softwarelicense.arizona.edu/cisco-anyconnect-vpn-client
- Download and install the correct version for your operating system
    - Just follow the default settings for this installation
- Once installed, type the following domain name into the log-in field: vpn.arizona.edu
    - if you've done this correctly, it should change to read UA SSL VPN
- You will need to be enrolled in NetID+ to use this connection
    - username is your netID
    - first password is the one you always use to log in
    - second password is the code sent to you via your secondary form of authentication
        - not enrolled in NetID+ yet? go to: https://netid-plus.arizona.edu/

5. Install Arduino IDE

- You will need this for Lab 4 (unless Platform IO engineers fix the serial print bug until then! *fingers crossed*)
- Navigate to https://www.arduino.cc/en/main/software
- Select the installer for your specific operating system
    - Note: There is a separate IDE **App** for Windows 8.1 or 10. If you run Windows **8.1 or 10** and want the regular version (and not the app), please choose the installer for Windows XP and up
- On the next page you can either "Just Download" or "Contribute & Download" - totally upto you :) Note that the keyword here is "Download" :)
- Open the downloaded installer and navigate through the next steps (The usual 'Yes' , 'I Agree' and 'Next' clicks)
- Choose the installation directory and click 'Install'
- During the installation phase, you may get a few prompts asking for your permission to install from Adafruit/Arduino LLC, click 'Allow/Install'
- Wait for the installation to complete, and you are all set!