Prepping for LoisLab projects on Windows

1. Install Git:
   a. Go to https://git-scm.com/download/win and download the setup program
   b. Install with the defaults
   c. Test it by cloning the repo for Qbot by typing:

   > git clone https://github.com/LoisLab/qbot.git

2. Install Python:
   a. Go to https://www.python.org/downloads/windows/
   b. Click the "Latest Python 3 Release" link at the top of the list
   c. Click the "Windows x86-64 executable installer" link to download and save it in your Downloads folder
   d. Run the installer. Note the installation path on this screen under "Install now" - you may need it for the next step.
   e. Check "Add python to PATH"
   f. Click Install Now
3. Add Python to the system path:
   Sometimes the installer fails to add Python to the path. We'll check, and fix it if needed.
   a. Open a command prompt
   b. Type "python" and hit enter. If the python interpreter opens and you get a prompt like ">> " then you are okay to skip to step 4. Otherwise, continue.
   c. Go to the start menu, control panel, System and Security, System
   d. Click Advanced System Settings
   e. Click Environment Variables
   f. Under System variables, choose "path" and click edit.
   g. On the next available blank line, add the path to the python install from the previous step. For me, that was "C:\Users\<username>\AppData\Local\Programs\Python\Python37\". Yours will be different.
   h. Click OK all the way back out
4. Install numpy
   a. Open a command prompt
   b. Type "python -m pip install numpy" and hit enter

If everything is properly set up - you have a copy of the QBot project files and a working Python environment with numpy - you should be able to test out the QBot simulation. Go into your clone of the QBot project and type "python example_virtual.py". If you see an animation that starts drawing paths like the image below, you're all set up:
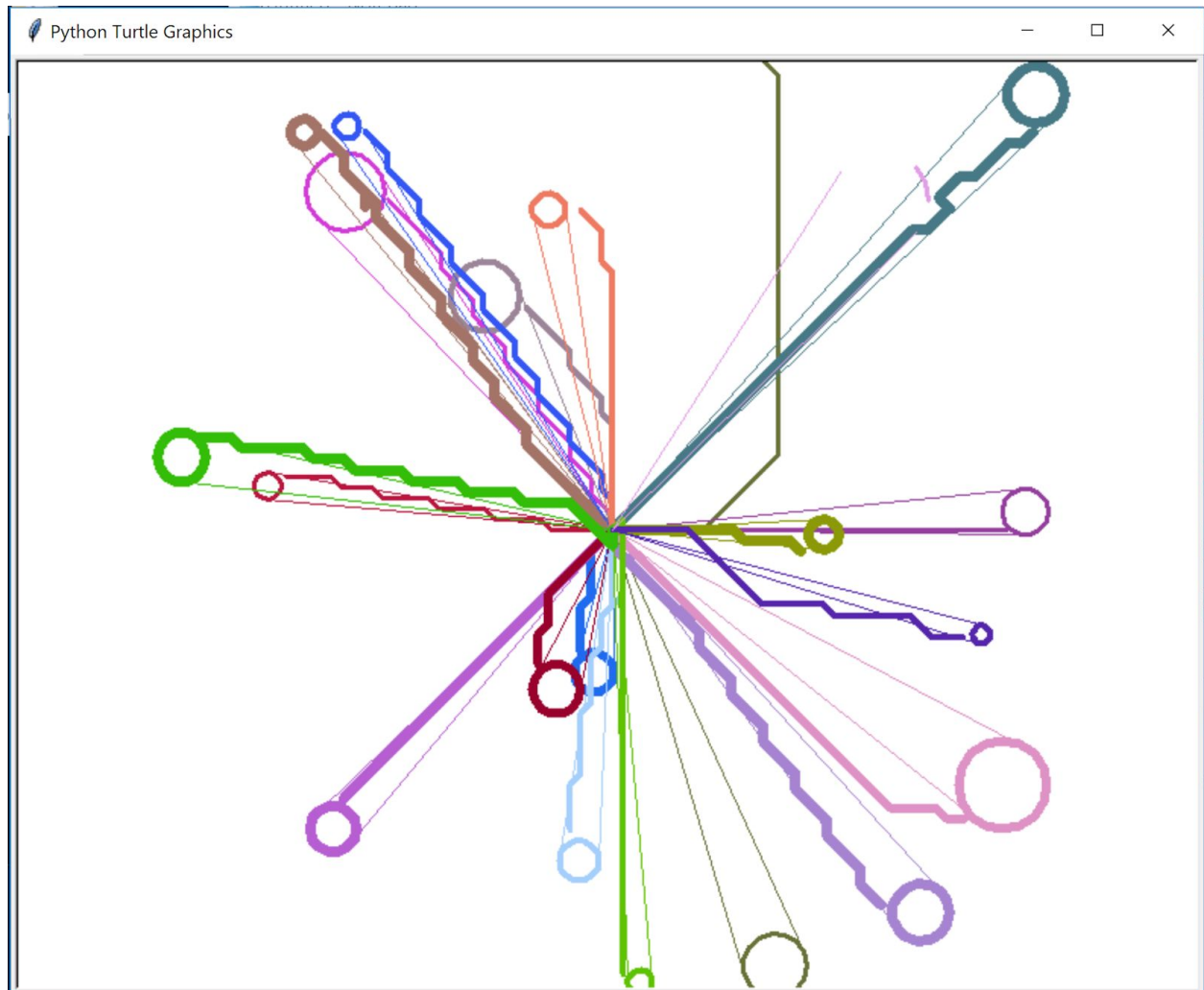
If you have any questions, comments, or stories to share, don't hesitate to contact us!

Software - michael@loislab.org
Hardware - jeff@loislab.org