New Software Member Kit
Thunderbots@Home, UBC 2013

1. **Ubuntu 12.04**

   We'll be using the Linux OS for developing our code. It is able to compile on command line for Python, C++, C, and Java. It can also use IDEs such as Codeblocks and eclipse. Testing is also easy with scripting and debugging with gdb.

   ROS is extremely easy to use with Linux comparative to Windows and Mac, and most of the developers on the team learned it with Linux.

   I suggest you find a laptop to fully install linux on, or you'll be having constant problems with partitioning and installing a second OS, and a virtual machine results in slow dev time and other debugging things that slowly drain your time and take attention away from your project.

   Download & Installation instructions can be found here:
   http://www.ubuntu.com/download/desktop/install-desktop-long-term-support

2. **ROS Distribution and setup**

   Willow Garage, developers of ROS, constantly come out with new distros as they are rapidly prototying ROS. When we first started the project, it was the Fuerte distro. 3 months in, Groovy came out and now we're at Hydro Medusa. Install Hydro Medusa.

   Installation instructions can be found here:
   http://wiki.ros.org/hydro/Installation/Ubuntu

   If you need help with pathing issues or setting up your ./bashrc file, I'll help. Just send me an email at noobaca2@gmail.com

3. **Github**

   This is our repository. You can find a detailed tutorial on assembla written by Michael Moritsugu. He knows tons about Git, and that carries into Github knowledge.

   The basics are: You need the repository in some folder, so open your terminal and type:

   `git clone` http:/..... to get the repository
   `git pull` in that directory to update it
   `git help` to see a list of commands

   You also might have to do

   ```
   sudo apt-get install git
   ```

to be able to use the commands like this.

You can find our repository here:
https://github.com/thunderbots/athomesoftware

You can find Michael's Tutorial here:
https://www.assembla.com/spaces/thunderbotsathome/wiki/Git_%28command_line%29

4. **Assembla**

   Assembla is a project management site that we'll be using primarily for its ticketing system. The tickets are made by myself and assigned on assembla.

   You'll need to make an account and sign in and watch the thunderbots space. The tickets will be assigned when the projects are chosen by yourself and you can use it as a place to update the progress for everyone else to see.

   Assembla: https://www.assembla.com/spaces/thunderbotsathome/wiki

5. **RoboCup@Home Competition**

   See this for details on the RoboCup Competition:
   http://www.robocup.org/robocup-home/
   https://www.assembla.com/spaces/thunderbotsathome/wiki/Preregistration

6. **Coding Practices**

   I had sent out a coding practices doc, but instead we'll be using Google's standards as I had totally forgot about them.

   You can find them here:
   http://google-styleguide.googlecode.com/svn/trunk/

7. **Testing Your Code with ROS/In general**

   Unit testing with ROS can be found on Assembla here:
   https://www.assembla.com/spaces/thunderbotsathome/wiki/Unit_Tests_and_ROS