Steps to getting started with Guidebot Software

1. Get Linux installed.

* Used Ubuntu 11.10 for development
* The Guidebot itself uses Ubuntu 10.04

1. Familiarize yourself with Cmake. This is helpful in installing and compiling all the software needed to interface with the robot and the kinect. It is also used to link libraries when compiling source code for the guidebot. See “Helpful Files” under the documents tab in the wiki.
2. Jump to the step with the libraries you need for development. OpenCV (step 4) and OpenKinect (step 5) for images, PocketSphinx for speech (step 6), MRPT for everything (step 7).
3. To get OpenCV installed go to <http://opencv.willowgarage.com/wiki/InstallGuide>.

* Follow the steps to install, but be sure that all files are received from the download. This will make it so OpenCV will not build if not all the files are there.
* Note the version of OpenCV used will be extremely important. If using Sreeram’s code he built it using version 2.2. We tried with 2.3 and that caused some major problems. Nothing extremely important was developed with version 2.3 so it is recommended to use 2.2.

1. To get open Kinect follow the instructions at <http://openkinect.org/wiki/Getting_Started>.

* The only major issue with this was getting the “libfreenect.h” library to link. To get this to work I went to /usr/local/include and modified the libfreenect.hpp file to change the path of the #include <libfreenect.h> to #include <libfreenect/libfreenect.h> .

1. To install pockesphinx follow the instructions at <http://cmusphinx.sourceforge.net/>.
2. To install MRPT follow the installation instructions at <http://mrpt.org> and see the document in helpful files called “Using MRPT on Ubuntu”.