

Biweekly Report March 31, 2003 – April 11, 2003

Several things have taken place since the last bi-weekly report. The most significant achievement is the completion of the initial map component of the application. In addition, both the joystick and sonar prototypes are now running on the Pocket PC. This report discusses the progress of these two items, and some notes about what remains to be done.

The first item to report on is the status of the mapping tool. The current code is able to parse most of the directives in ActivMedia map files, and display the corresponding map on the Pocket PC. There was a lot of initial trouble in figuring out how to do file I/O on the Pocket PC platform, but this was resolved using C functions. A small issue with coordinates was fixed to have proper orientation for the map. A basic image of the AmigoBot is currently used as the position indicator. The biggest items that Brady needs to complete are: to refine the robot position indicator, add support for the text/goal ActivMedia directives, and complete the modularization of the map to allow easy changes from the higher level application.

Moving onto the sonar, we now have a working model for the sonar display running on the Pocket PC. Quang is currently reorienting his model to match the exact angles of the sonar on the actual AmigoBot. He is currently using lines to display the sonar sensors, but is investigating using triangular shapes to match the actual sensor coverage of the robot. This component should be complete in the next few weeks.

In addition to the sonar and map, the joystick is also nearing completion. Mike has been working to complete the joystick display, and make sure that it can communicate properly with the rest of the application. This should be functional by next week.

In conclusion, a few things remain to be done. Matt is beginning to work on integration of the application components (ARIA, joystick, map, sonar) into a functional application. This integration will bring all of these components together, while adding the corrective and targeting position features. Since the map is already in its final stages of completion, Matt is already working on how to interface ARIA and other components with the map. As mentioned previously, Mike is nearing completion on the joystick, and Quang is making good progress on the sonar. Next week's meeting (April 14), should contain an integrated prototype of the application.