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EX-Bots
 Progress Report #3
 1/10/2006

Website URL: http://www.ce.rit.edu/research/projects/2005_winter/rt_ex-bot/

Project Description: Design and implement a set of navigational or exploratory robots. The goal is to use 1 (or more) robots to map an area using ultrasonic sensor measurements. This information is then sent to a user's computer which displays the area map information to the user (after mapping is completed or the mapping process is stopped). The user can then click on a robot, then on the map, and have the robot move to the designated spot on the map without the use of the sensors.

Project Timeline and Milestones:

Notes:

Dark Grey background: Completed

Grey background: Past Due

"None" in the Old Completion Date means that it is a new task
 (These notes apply to all tables)

Item Description	Primarily Responsible Member	Old Completion Date	New Completion Date	Comments
Setup User Interface	ME	12/6/2005	No Change	
Finalize Project Algorithms	ALL	12/8/2005	1/12/2006	
Conclude Bluetooth Research	ERS	12/10/2005	12/16/2005	
Create Website Template	ERS	12/13/2005	No Change	
Aquire All Hardware	TCL	12/16/2005	No Change	Out of our control
Implement Buttons/Map Function	ME	12/16/2005	No Change	
Test Component Functionality	TCL	12/23/2005	1/12/2006	
Implement Mapping Software	ME	1/1/2006	1/13/2006	
Construct Robots	TCL	1/1/2006	1/14/2006	
Write Avoidance Alrorthm	TCL	1/9/2006	1/13/2006	
Implement Packet interface	ERS	1/9/2006	1/12/2006	
Test Avoidance Algorithm	TCL	1/13/2006	1/15/2006	
Write Path Finding Algorithm	ME	1/13/2006	1/14/2006	
Test User Interface Functionality	ME	1/13/2006	1/15/2006	
Test Path Finding Algorithm	ME	1/20/2006	No Change	
Test Terrain Mapping	ALL	None	1/31/2006	
System Functionality Testing	ERS	2/10/2006	No Change	
Write Final Report	ERS	2/15/2006	No Change	
Demo Poster	TCL	2/17/2006	No Change	
Team Assesments	ALL	2/22/2006	No Change	
Finish Website	ERS	2/24/2006	No Change	

Items completed for this report:

Item Description	Primarily Responsible Member	Old Completion Date	New Completion Date	Comments
Conclude Bluetooth Research	ERS	12/10/2005	12/16/2005	
Aquire All Hardware	TCL	12/16/2005	No Change	
Implement Buttons/Map Function	ME	12/16/2005	No Change	

Items to complete for next report:

Item Description	Primarily Responsible Member	Old Completion Date	New Completion Date	Comments
Finalize Project Algorithms	ALL	12/8/2005	12/16/2005	
Aquire All Hardware	TCL	12/16/2005	No Change	Out of our control
Test Component Functionality	TCL	12/23/2005	1/12/2006	
Implement Mapping Software	ME	1/1/2006	1/13/2006	
Construct Robots	TCL	1/1/2006	1/14/2006	
Write Avoidance Alrorthm	TCL	1/9/2006	1/13/2006	
Implement Packet interface	ERS	1/9/2006	1/12/2006	
Test Avoidance Algorithm	TCL	1/13/2006	1/15/2006	
Write Path Finding Algorithm	ME	1/13/2006	1/14/2006	

Comments, Questions, and Difficulties:**Difficulties:**

Constant changing of project details: Need to isolate what we're using and buckle down and do it.

Path-finding algorithm: Doesn't cover all possibilities, still crude

User interface: Java applet doesn't want to be loaded inside of a separate java interface.

"PC stack" interface for bluetooth module very difficult to decipher, need to understand how to use it without PC interface, i.e. from the microcontroller.

Comments:

All hardware ordered, waiting for shipments.

Component testing anticipated to be done by the end of the day.

Robot construction under way, will be completed as soon as parts come in.

Algorithms in final stages, with the exception of the crudenes of the path-finding, expect to be finalized tomorrow, 1/11/2006.