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EX-Bots
 Progress Report #5
 1/24/2006

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

Project Description: The objective of this project is to create a robot that will be capable, with the assistance of a PC, of mapping an area, approximately 15 feet by 15 feet, then navigating the mapped area. The system will have a java-based user interface with a display of the mapped area and some controls and will communicate via Bluetooth v1.1 compliant modules. The robot will make use of ultrasonic sensors, a magnetic compass, and infrared phototransistors for mapping and navigation. The robot will use the I²C standard for communication with the sensors and Bluetooth module (except for the phototransistors).

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	1/12/2006	No Change	
Conclude Bluetooth Research	ERS	12/16/2006	No Change	
Create Website Template	ERS	12/13/2005	No Change	
Aquire All Hardware	TCL	12/16/2005	No Change	
Implement Buttons/Map Function	ME	12/16/2005	No Change	
Test Component Functionality	TCL	1/12/2006	No Change	
Implement Mapping Software	ME	1/31/2006	No Change	Major progress has been made
Construct Robots	TCL	1/14/2006	1/31/2006	Electrical is left
Write Avoidance Alrorithm	TCL	1/13/2006	No Change	
Rewrite Project Proposal	ERS	1/20/2006	1/24/2006	Essentially done, details needed
Implement Packet interface	ERS	1/31/2006	No Change	
Test Avoidance Algorithm	TCL	1/31/2006	No Change	
Write Path Finding Algorithm	ME	1/31/2006	No Change	
Test User Interface Functionality	ME	1/31/2006	No Change	
Test Path Finding Algorithm	ME	1/31/2006	No Change	
Find New Java Interface Tool	ME	1/31/2006	No Change	
Update website	ERS	1/31/2006	No Change	
Test Terrain Mapping	ALL	1/31/2006	No Change	
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
Implement Packet interface	ERS	1/31/2006	No Change	
Find New Java Interface Tool	ME	1/31/2006	No Change	

Items to complete by the month's end:

Item Description	Primarily Responsible Member	Old Completion Date	New Completion Date	Comments
Rewrite Project Proposal	ERS	1/20/2006	No Change	Essentially done, details needed
Implement Mapping Software	ME	1/31/2006	No Change	Major progress has been made
Construct Robots	TCL	1/14/2006	1/31/2006	Electrical is left
Test Avoidance Algorithm	TCL	1/31/2006	No Change	
Write Path Finding Algorithm	ME	1/31/2006	No Change	
Test User Interface Functionality	ME	1/31/2006	No Change	
Test Path Finding Algorithm	ME	1/31/2006	No Change	
Update website	ERS	1/31/2006	No Change	
Test Terrain Mapping	ALL	1/31/2006	No Change	

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

Discovered several details that still need to be worked out or found, such as the exact information that's returned from the ultrasonic sensors, and the precision that we need for that information

Comments:

A great deal of documentation has been done, but the updated proposal is waiting on a couple of details, such as that listed above. However, these should be taken care of by the end of class time Tuesday (depending on what happens during class) or shortly thereafter.

I have not heard the final word as to whether Tim was able to complete construction of the robots, so I will leave it as unfinished.