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EX-Bots
Progress Report #6
1/31/2006

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 I^2C 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	1/31/2006	No Change	
Write Avoidance Alrorithm	TCL	1/13/2006	No Change	
Rewrite Project Proposal	ERS	1/24/2006	No Change	
Implement Packet interface	ERS	1/31/2006	No Change	
Test Avoidance Algorithm	TCL	1/31/2006	No Change	Still completing construction
Write Path Finding Algorithm	ME	1/31/2006	No Change	More than half way
Test User Interface Functionality	ME	1/31/2006	No Change	Ongoing, so far so good
Test Path Finding Algorithm	ME	1/31/2006	No Change	works good on interface
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	Unable to start due to above concerns
Bluetooth Module Functionality	ERS	None	2/5/2006	
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
Rewrite Project Proposal	ERS	1/24/2006	No Change	
Update website	ERS	1/31/2006	No Change	

Items to complete by next week:

Item Description	Primarily Responsible Member	Old Completion Date	New Completion Date	Comments
Implement Mapping Software	ME	1/31/2006	No Change	Major progress has been made
Construct Robots	TCL	1/31/2006	No Change	
Test Avoidance Algorithm	TCL	1/31/2006	No Change	Still completing construction
Write Path Finding Algorithm	ME	1/31/2006	No Change	More than half way
Test User Interface Functionality	ME	1/31/2006	No Change	Ongoing, so far so good
Test Path Finding Algorithm	ME	1/31/2006	No Change	works good on interface
Test Terrain Mapping	ALL	1/31/2006	No Change	Unable to start due to above
Bluetooth Module Functionality	ERS	None	2/5/2006	

Comments, Questions, and Difficulties:

Difficulties:

Tim's back gave out, causing delays in the construction of the robots.

On the main webpage, I can't get the background to completely fill the "links" box. I intend to track down someone in the IT department about this.

Merve apparently has food poisoning from bad yogurt.

Comments:

Merve has an appointment to discuss serial communication packet design for sending information to the Bluetooth, which should register as a serial port.

Robot construction appears to be nearly finished; more photos have been provided and will be posted on the website later this week.