

Minutes of RSSC meeting October 13, 2007

Classroom

Well, this was the meeting scheduled for the great Hallway Contest. The classroom session was cancelled to give time for the contestants to fine tune their robots.

Class for November will be on working with abs plastics.

Business meeting



Upcoming contests will include:

November: No contest

December: the annual Talent contest

January: A can pickup and retrieval contest was proposed by Prof. Martin Mason of Mount San Antonio college. See draft rules at: <http://profmason.com/?p=408>

We have decided not to replace the SDRS mail list with a forum, but to create a new mail list for RSSC. This has not been done yet. Our webmaster was not here to report on progress.

The Great Hallway contest!

Well, we had only two contestants for the contest, Derek Jones and Alex Brown. Hence, we chose to make the even more of a demonstration than a real contest (i.e. with prizes and all). Disclaimer.. Alex Brown is your humble secretary and is generating these minutes. Hence, any bias in the contest description is to be expected. And the reason why he didn't get any pictures will become clear.

The first level of contest was a dead reckoning event where robots had to travel 50 feet down the hallway, stopping within 2 feet of the end wall, pivoting and returning to the start point.

Derek Jones' robot had some success but had some slow turning to the right problems and generally hit the wall before reaching the end of the hall.

Alex Brown's robot proceeded down the hall quite straight, pivoted 180 degrees and proceeded toward its start point appearing to be within a few inches. Unfortunately, the robot failed to stop at the start point and just kept going requiring a manual shutdown. Hmm, never did that all morning in practice. So, I spent the remaining time trying to fix my robot while Derek made a few more runs.

No one was ready for the second level of the contest; which was to basically make the same run using a wall following technique. So Bruce Weimer did a demo of his robot Leaf doing the third level which was to find colored circles on the floor, navigate to them and stop. He was successful in this endeavor. Pictures follow:



Show and Tell



Ron Rose showed a car compass which is available from Harbor Freight for \$7. It provides a readout of 8 magnetic directions (N, NE, E etc) He has taken it apart and observed two coils mounted on the circuit board similar to those seen on more expensive compasses such as the SRF04. Can it be hacked?



Don Fears reminded us that there is a rather large hardware store with a lot of industrial and hard-to-find items with several locations nearby. See mcfadden-dale.com



John Davis showed his modified Hummer RC car which is now autonomous with bumper sensors and range sensors.

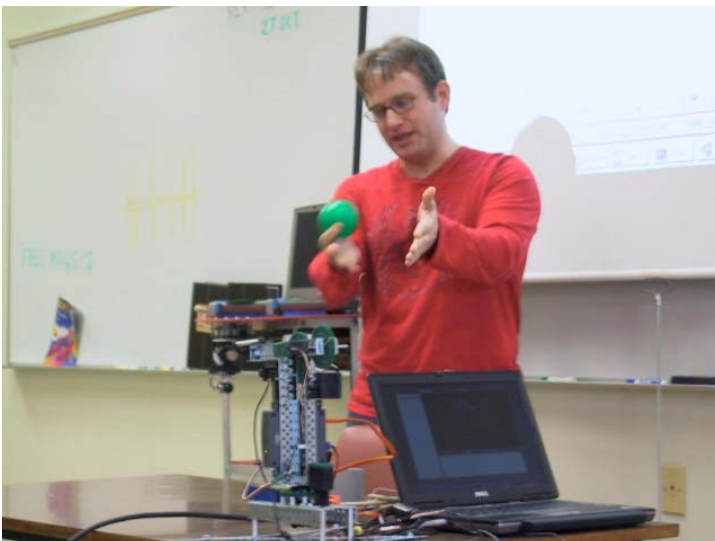


David Steffen showed another RC car which he is modifying. He has built his own pc board design using expresspcb.com. It includes an ATmega32 processor, an ARM9 embedded processor with Linux, Flash drive and WIFI. It uses Sharp IR range sensors and David intends to add sonar sensors also.

It can be run from a remote computer and he is working on adding a webcam.



Martin Mason (profmason.com) showed a mini RC car which is controlled by an IR remote.



Steven Gentner continued to amaze us with new functions provided by his RoboRealm software (free at roborealm.com).

Today he showed a webcam mounted on a VEX kit put together as a pan and tilt control. With the additional feature of being able to shoot rubber bands, he was able to place the green target and RoboRealm would aim the camera (and rubber band shooter) straight at it and hit it.

Steven told us that he would be showing his RoboRealm software in the exhibit hall of the RoboDevelopment convention in San Jose on October 25 & 26. The following picture shows him explaining its capabilities to an interested crowd.

