

MazeBot

Eric Mittelhammer, Srikanth Rajan & Kimberly Chezem
mitt5920, raja5568, chez9993 @rowan.edu

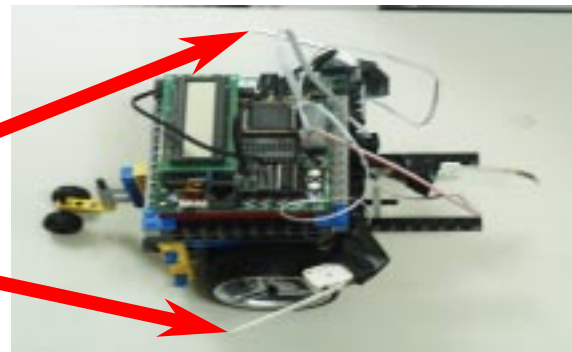
Computer Science Department

This project has had many *surprises* that we could not predict.

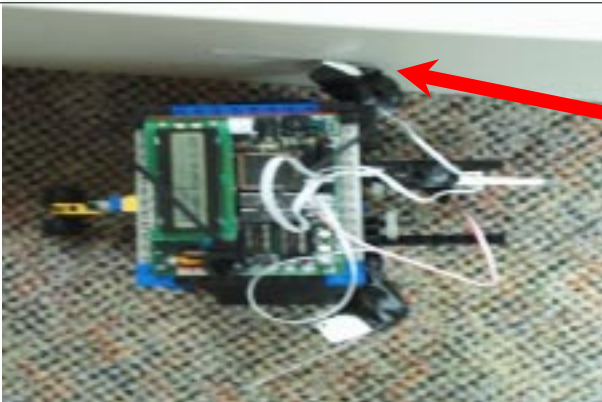


Originally, we had planned on using infrared sensors, however, their range is only 2 cm.

We then had to switch to the touch sensors that are on our robot now.



WHILE touch sensors fixed our range problem, new *calibration* problems arose.



Forcing the robot to hug the wall caused it to turn irregularly.

It is difficult to differentiate between straying from the wall and preparing to turn.



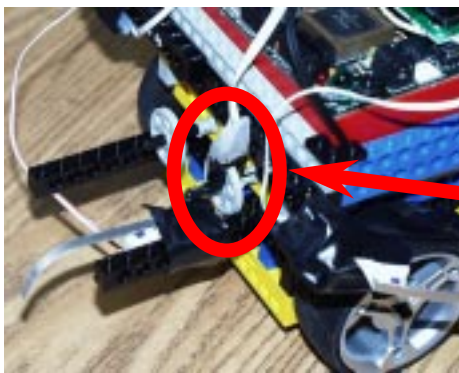
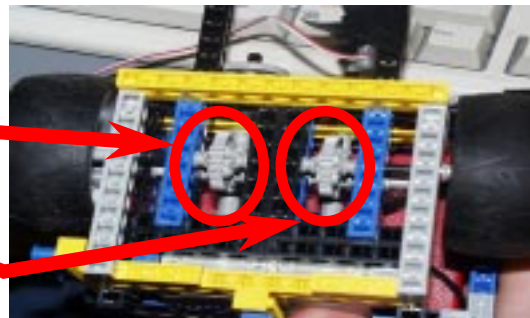


Many times, hardware problems required us to make *clever* software adjustments.



We had to write a function to straighten the path of the robot if it hit a side wall.

We had to change the turn measurements to compensate for the gears.



The break-beam encoder is used to measure distance traveled and turning radius.



Credits

Special thanks to Dr. Jennifer Kay and Rowan University's Computer Science and Geography departments.