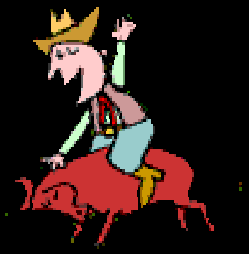
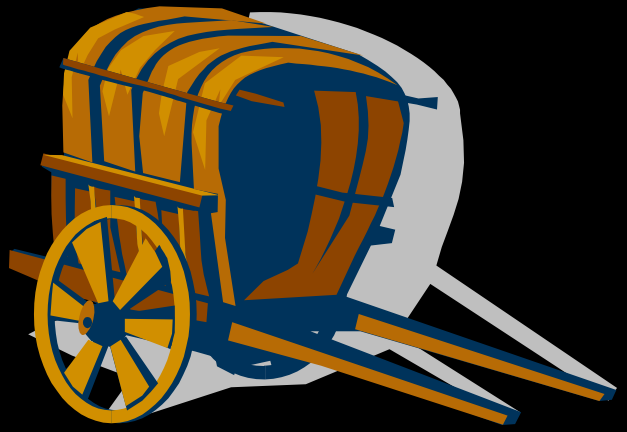
The Oregon Trailer



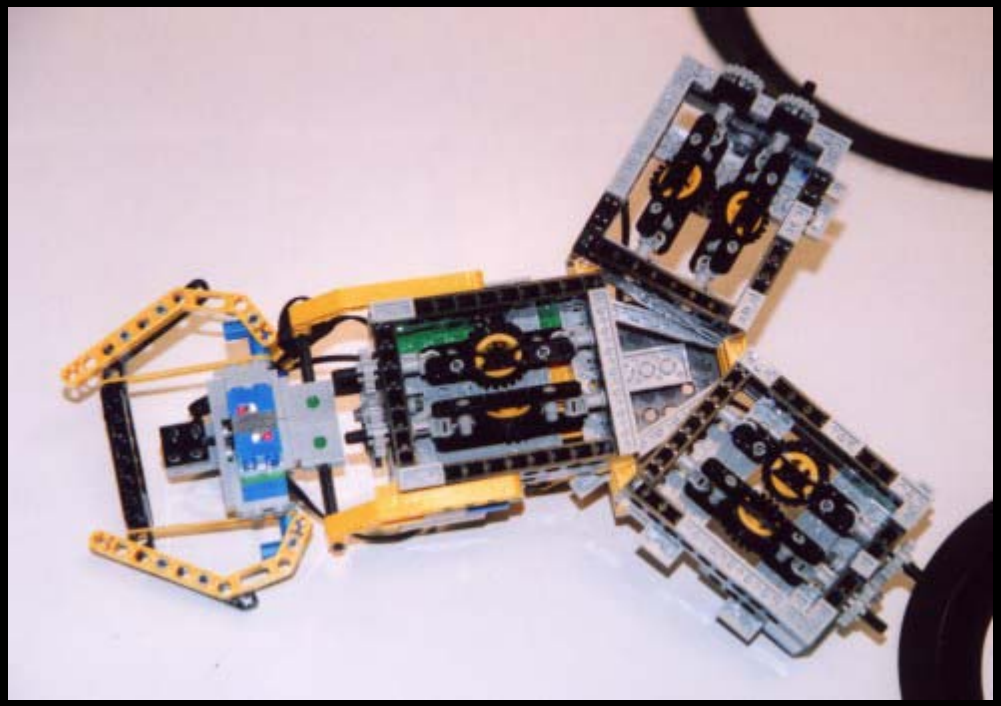


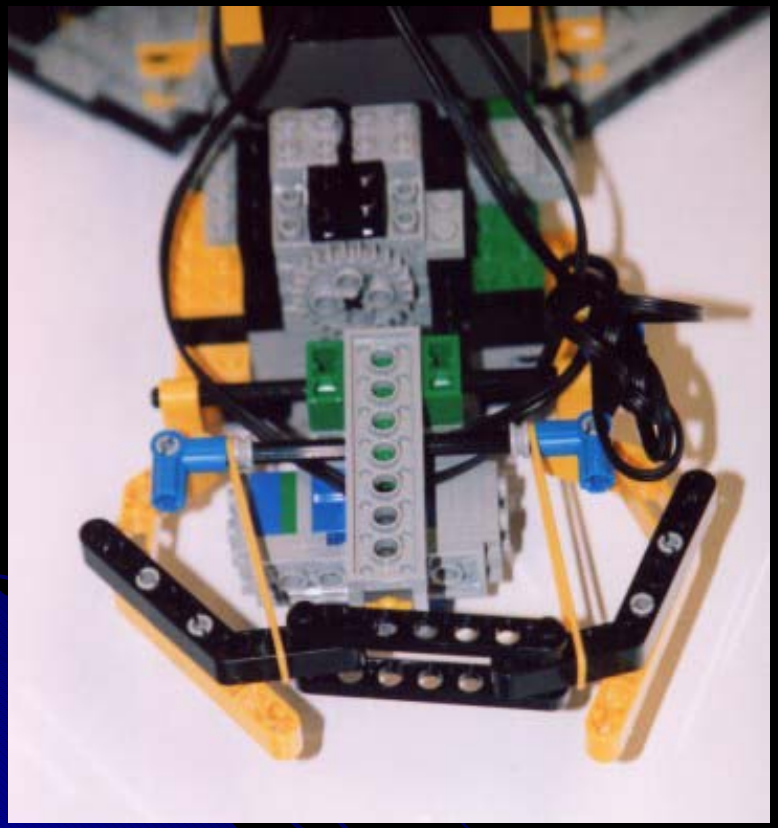
Logan Strenchock

Harper Kubicek

Mark Strasnick

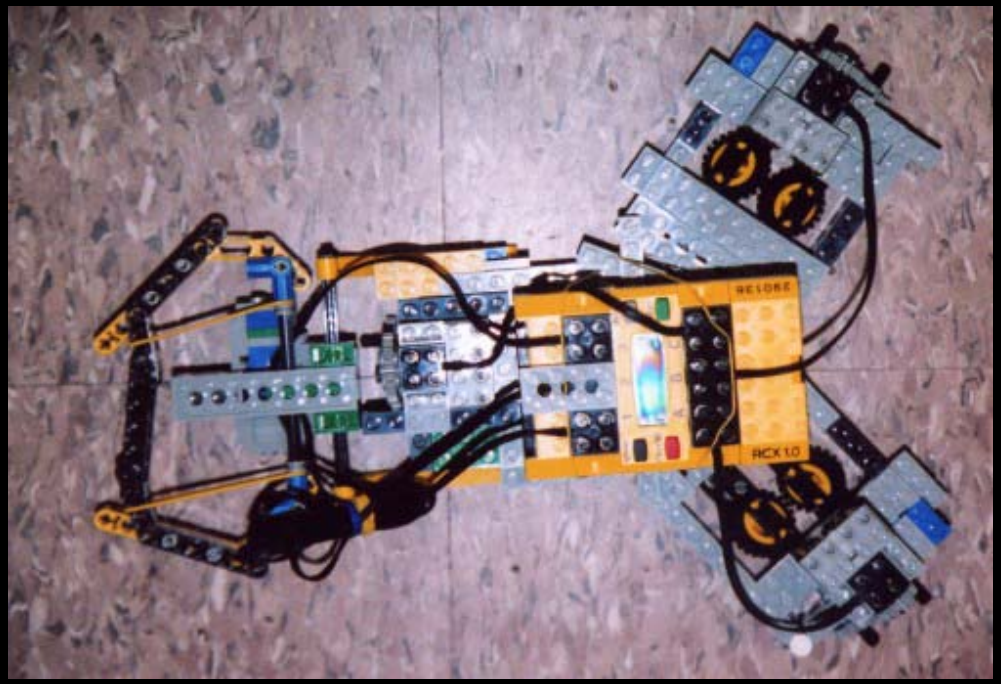
Underside View showing "Small Wheel" design.



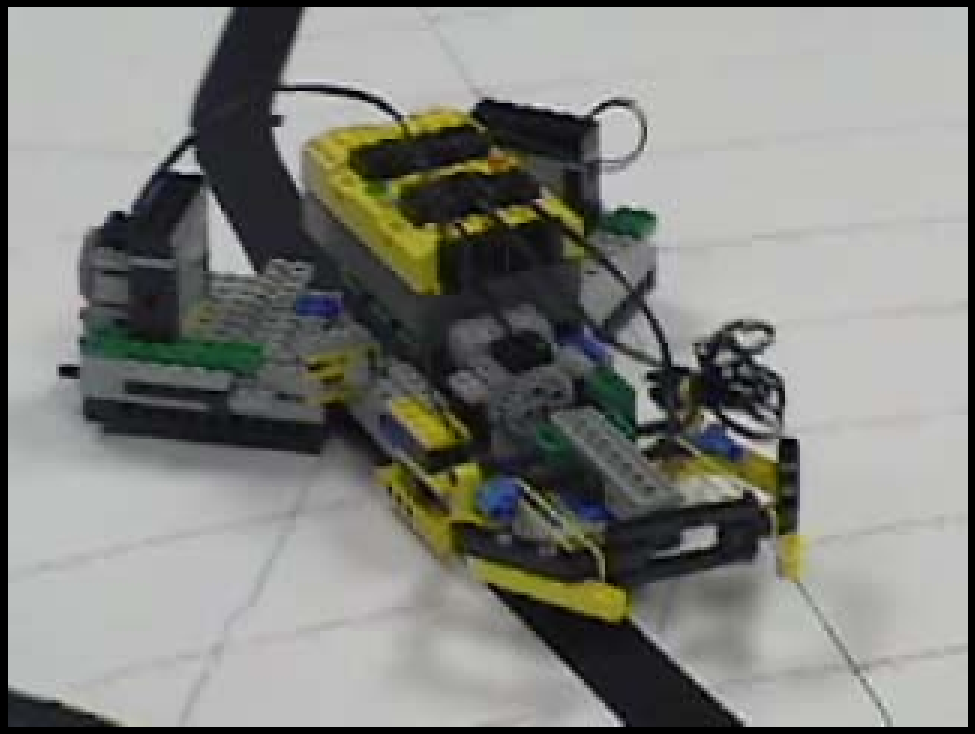


Our Bumper was $MONEY$!!

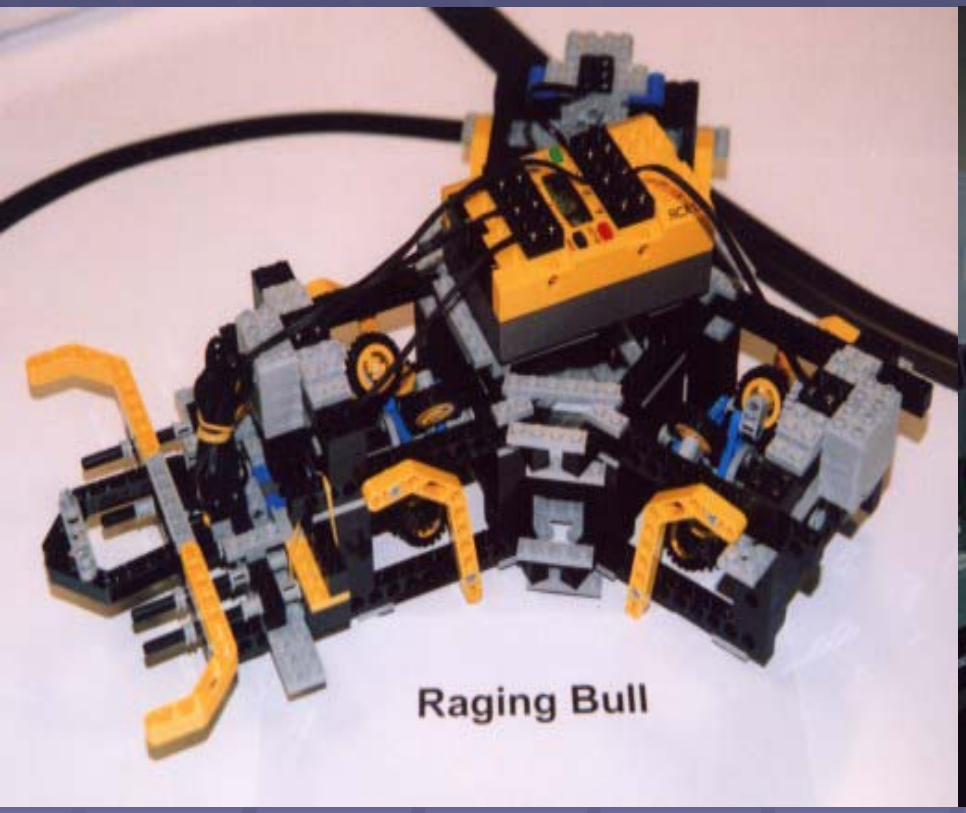
The top view of our sweet robot.



The ‘Oregon Trailer ’ in Action

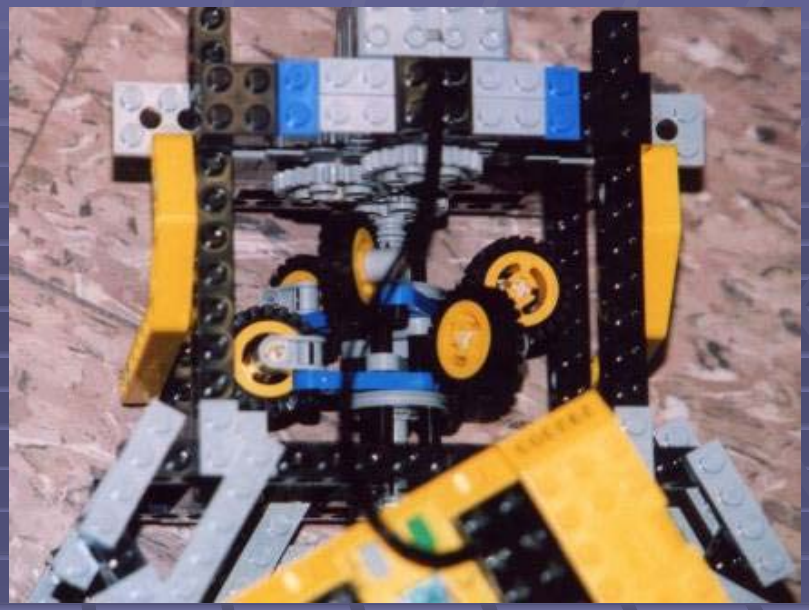


The Raging Bull

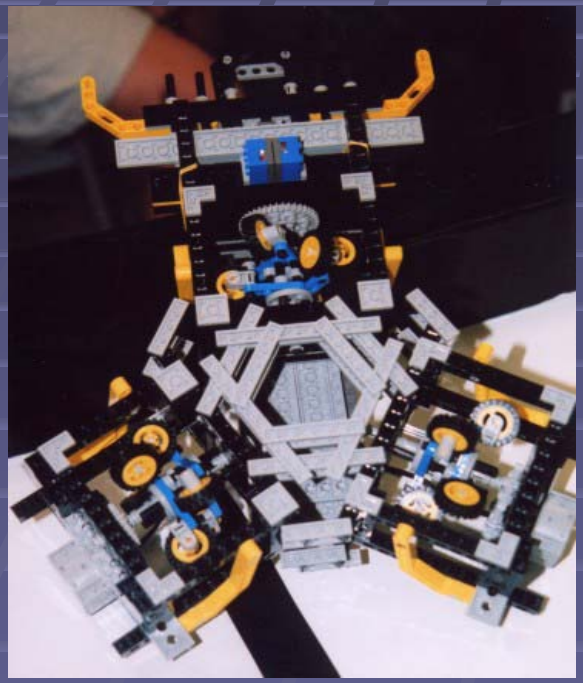


Daniel Burritt, Bryan Tansky, Alex Plotkin

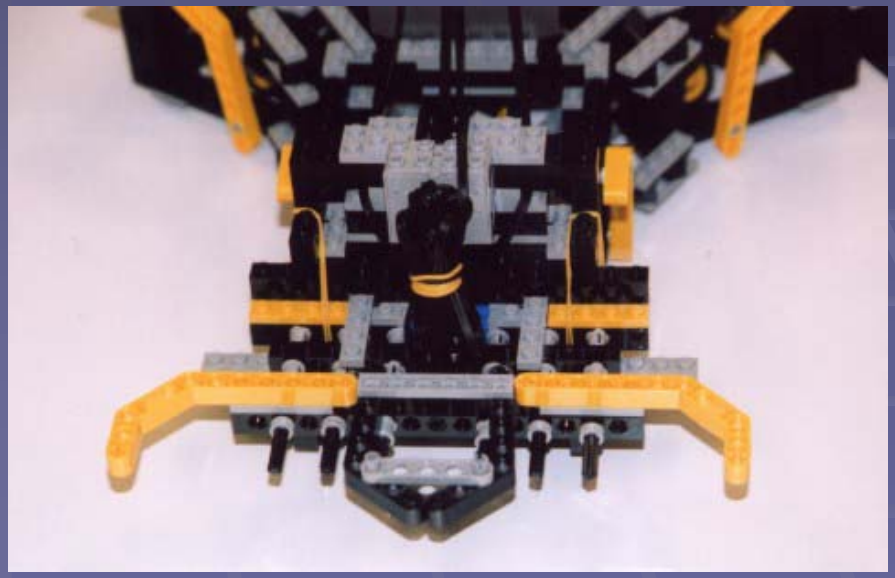
- Wheel Design



- Structure of Robot

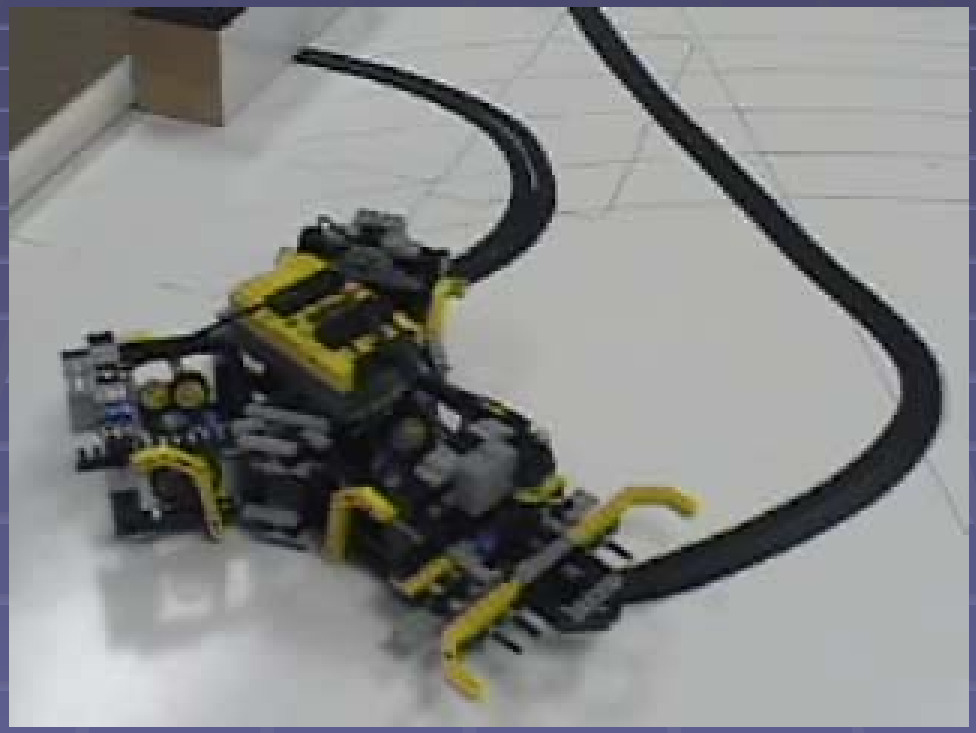


- Bumper System

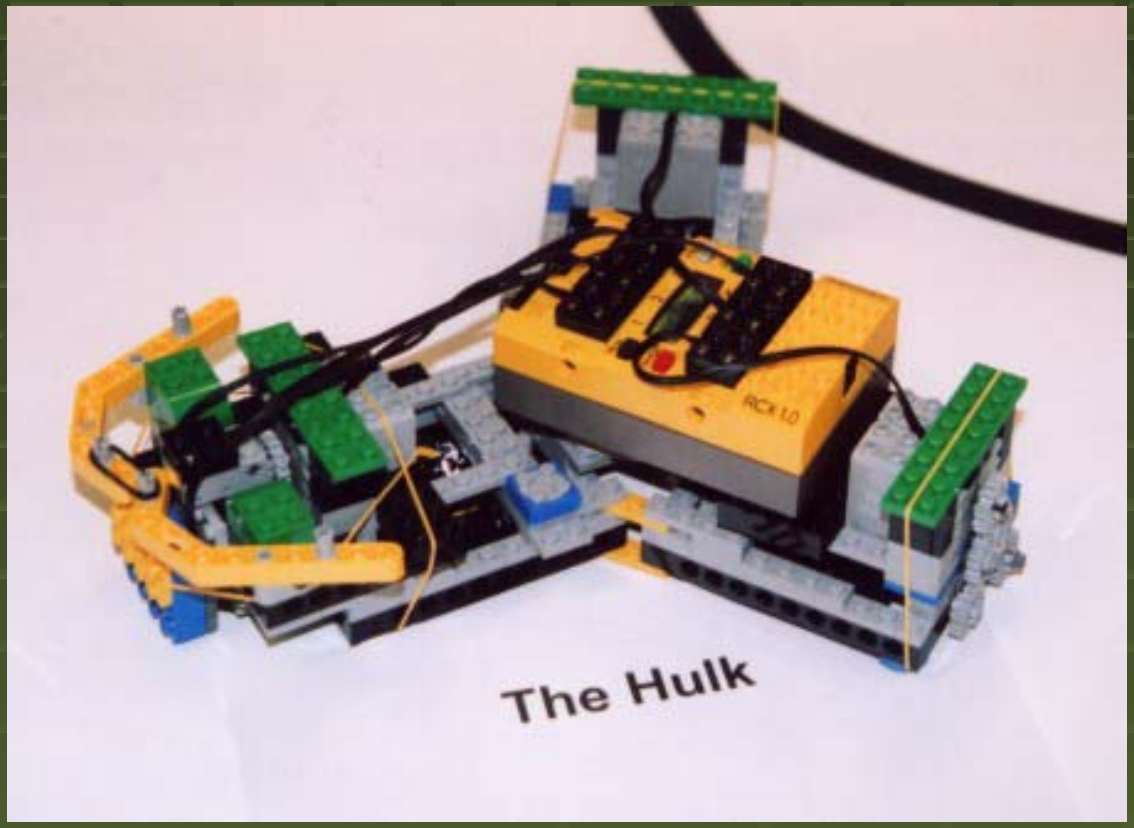


- Troubleshooting

The ‘Bull’ in Action



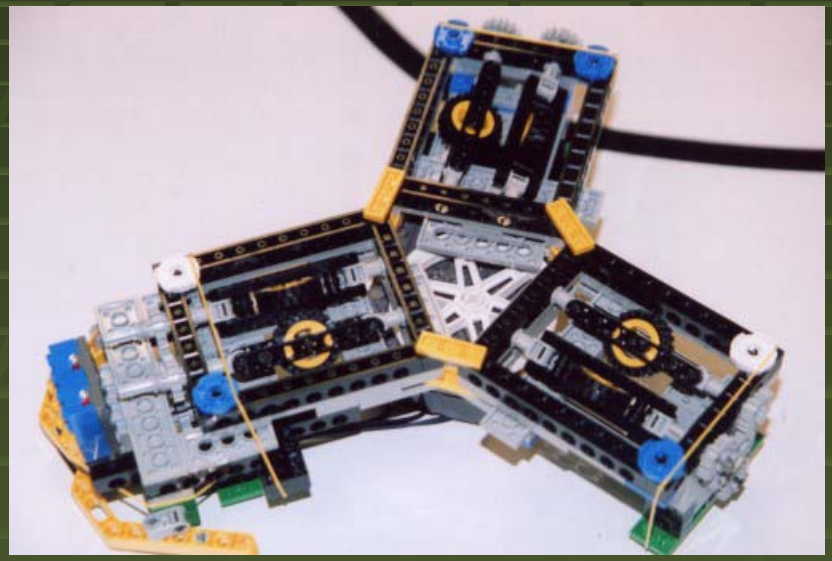
The HULK



David Little, Dan McCoach, &
Renee Philbrook

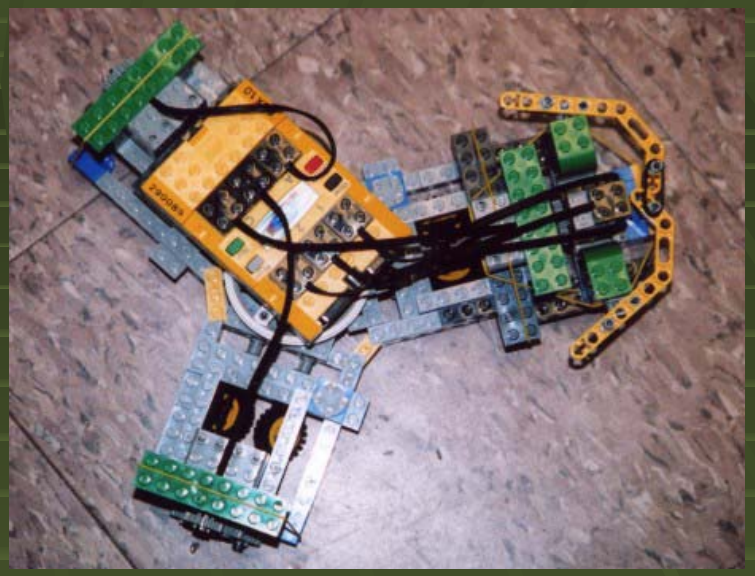
Wheels

Rotate end over end instead of conventionally spinning about an axis



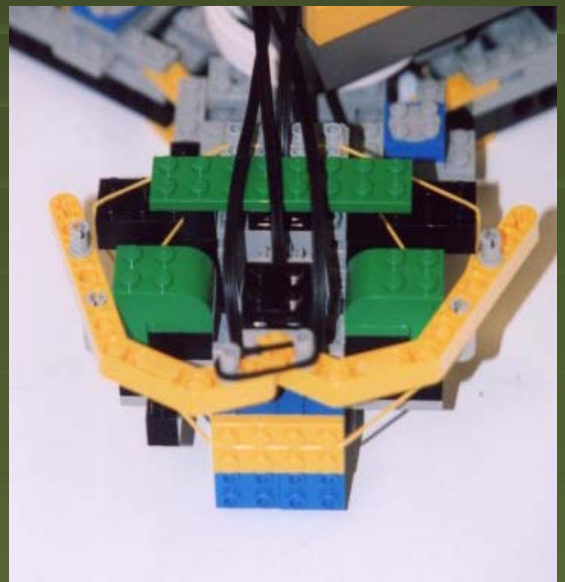
Platform

Killough's platform, rotates about its center

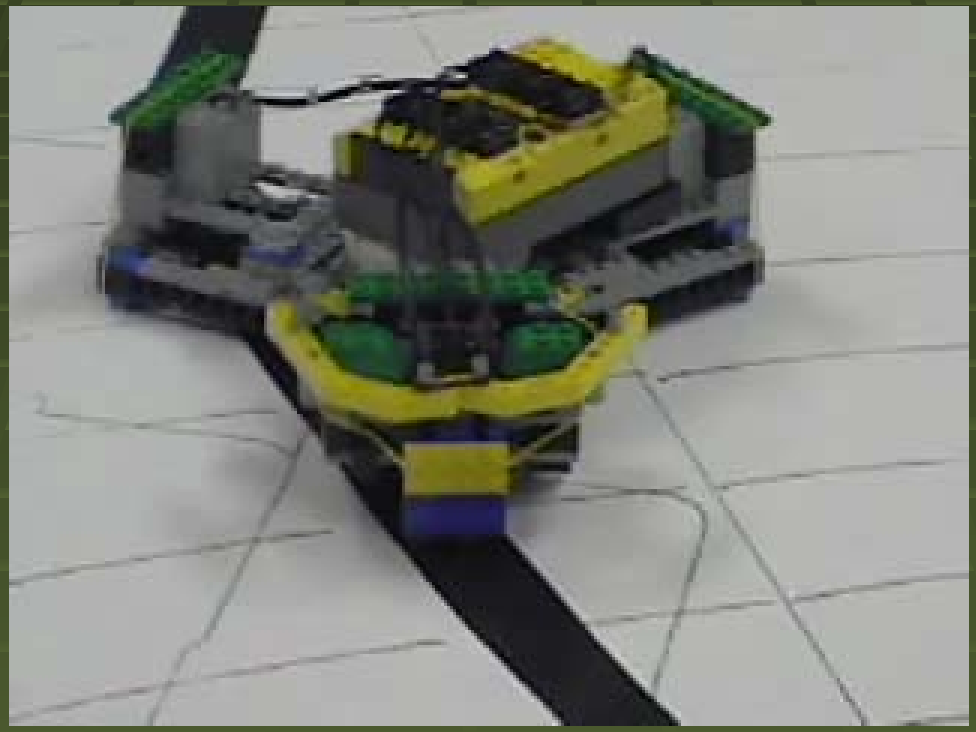


Bumper

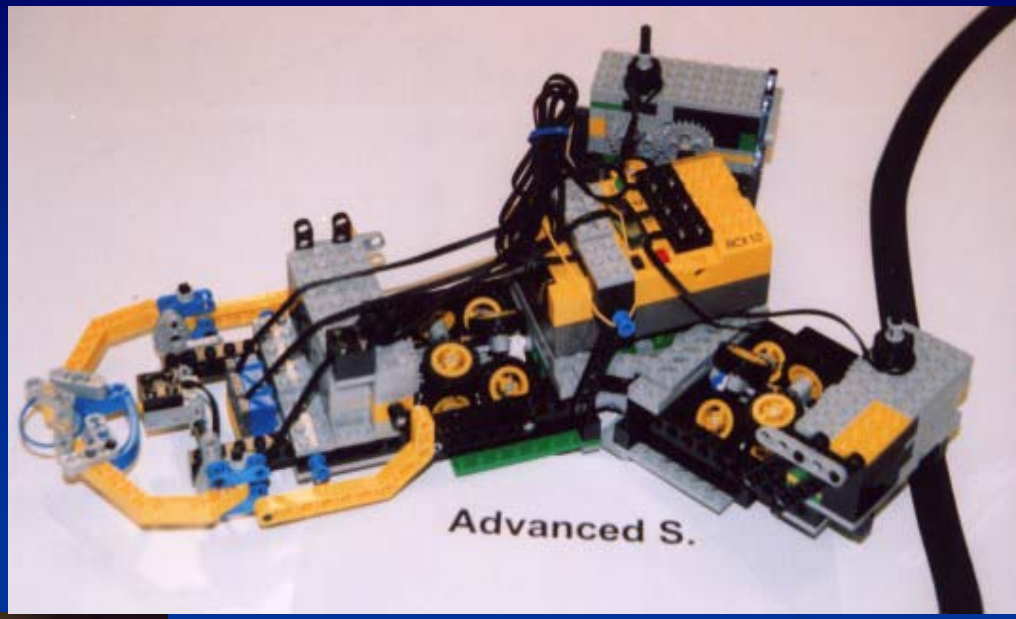
Had to test several designs; The final design was reliable



The ‘Hulk’ in action

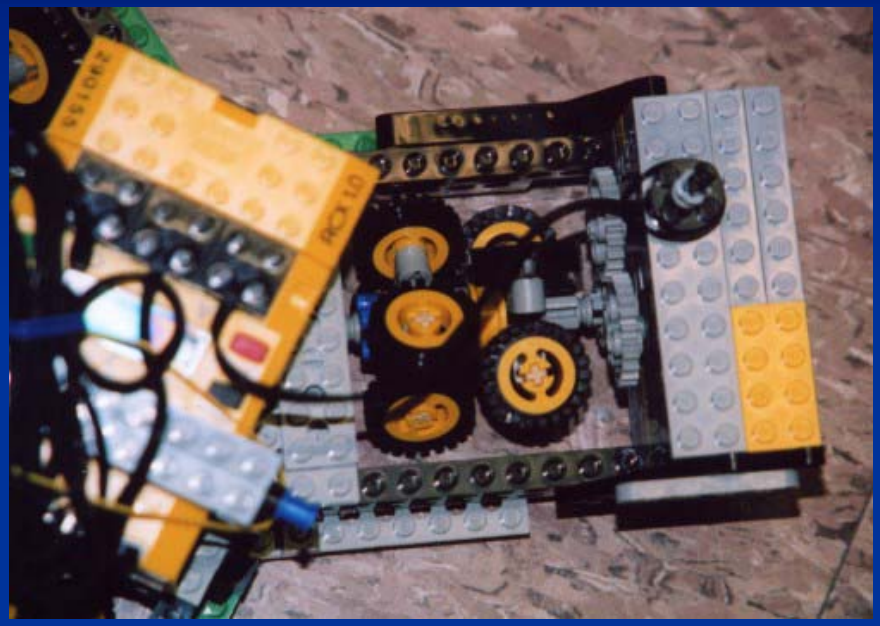


Advanced S.



Stenfan Dainard,
Benjamin Rice,
Stanislav Tsaney

Design



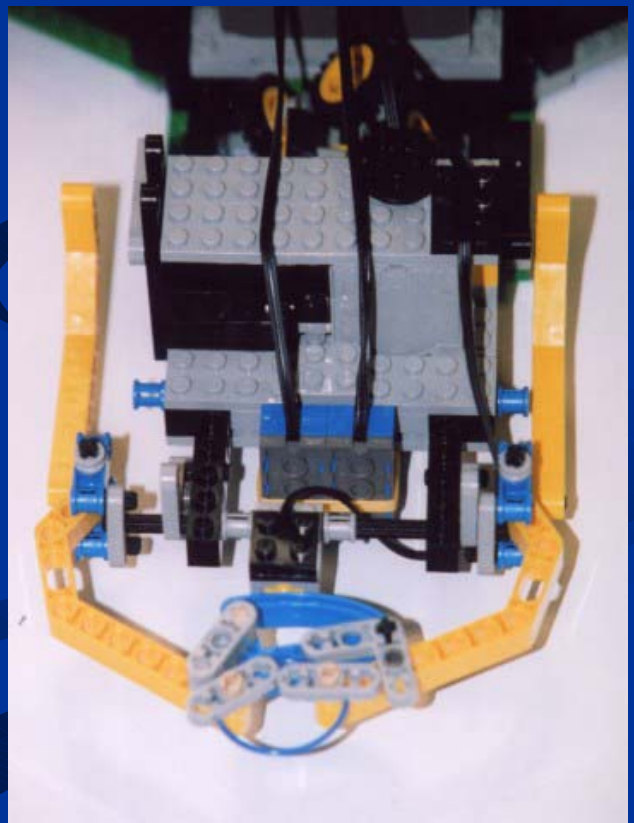
Motor and Wheels:

-24 Wheels

-Motors on outside

Bumper:

-Trigger at a 90° angle

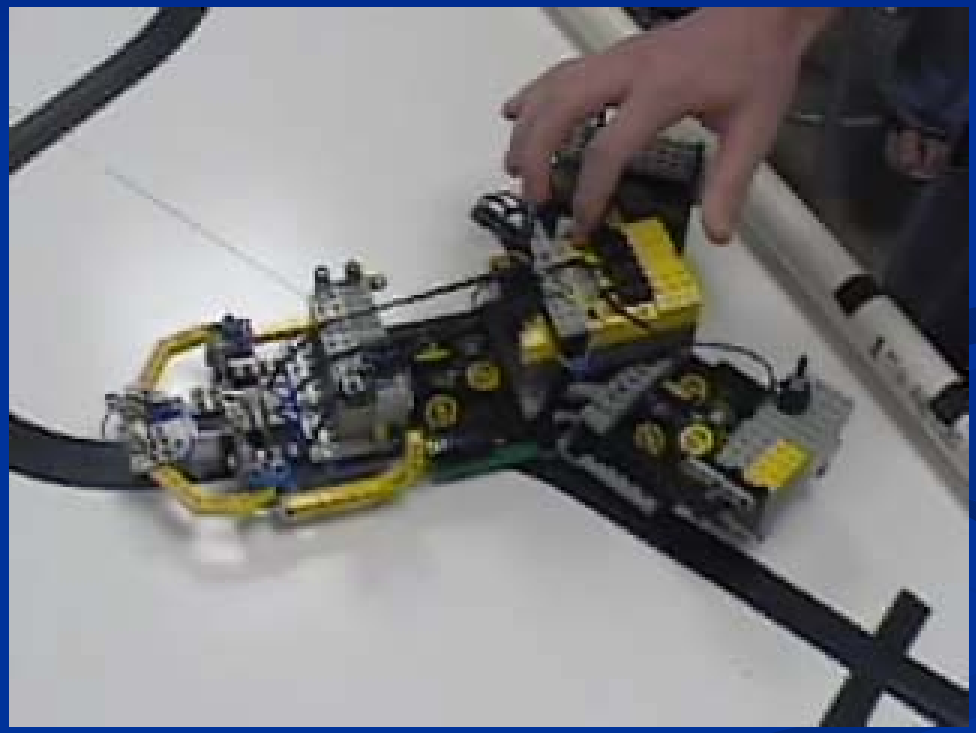


Problems? What Problems?

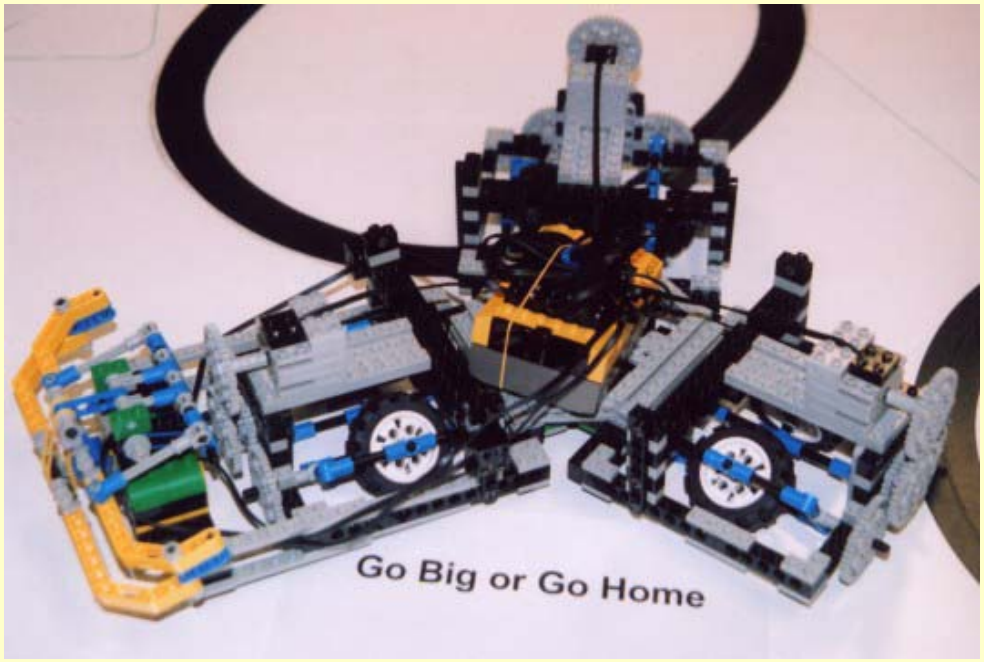
-Initially weak structure (added parts)

-Wheels popped off (added parts, changed direction)

The ‘Advanced S.’ in action



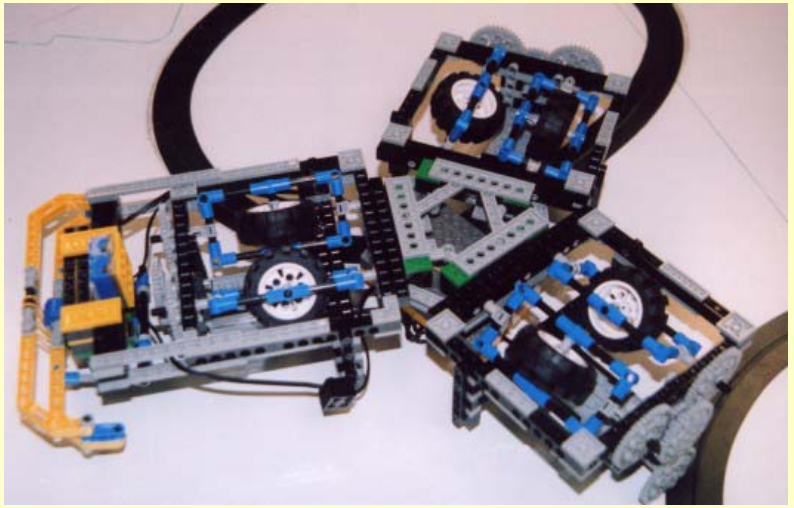
"Go Big or Go Home!"

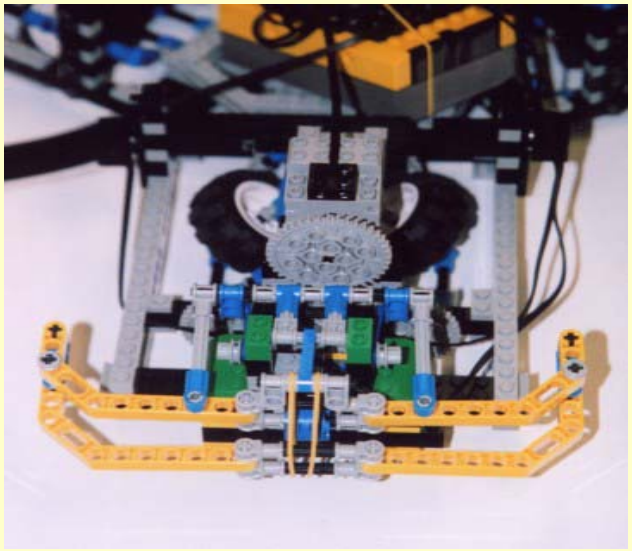


Team Members: Chris Kim, Luckshitha Liyanage, & Sawyer Romich

Ingredients for Success

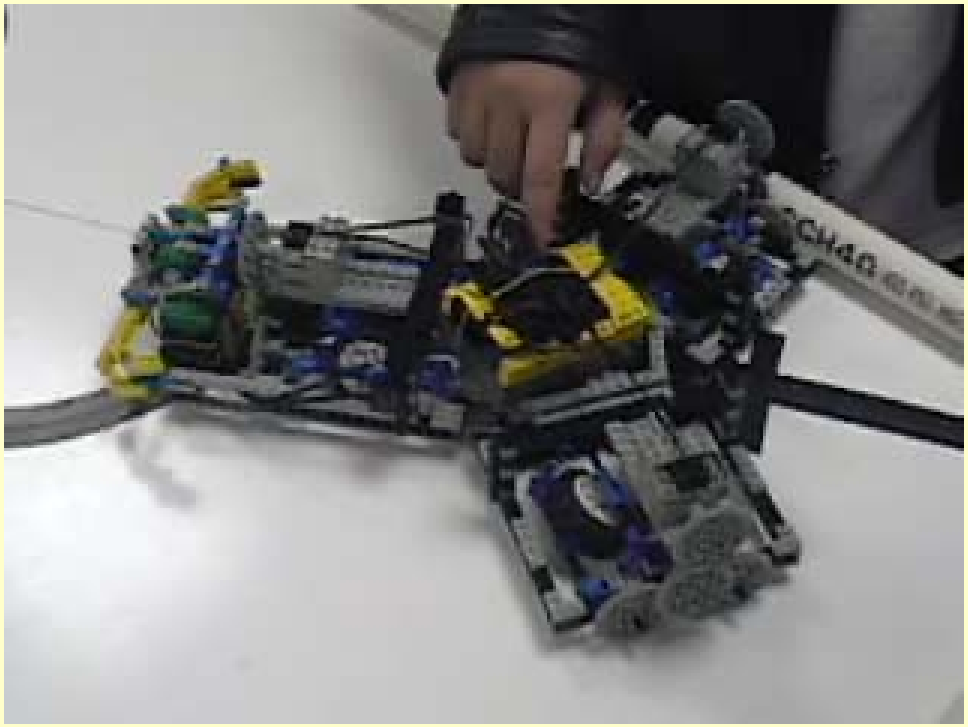
- Large, Sturdy Robot Design



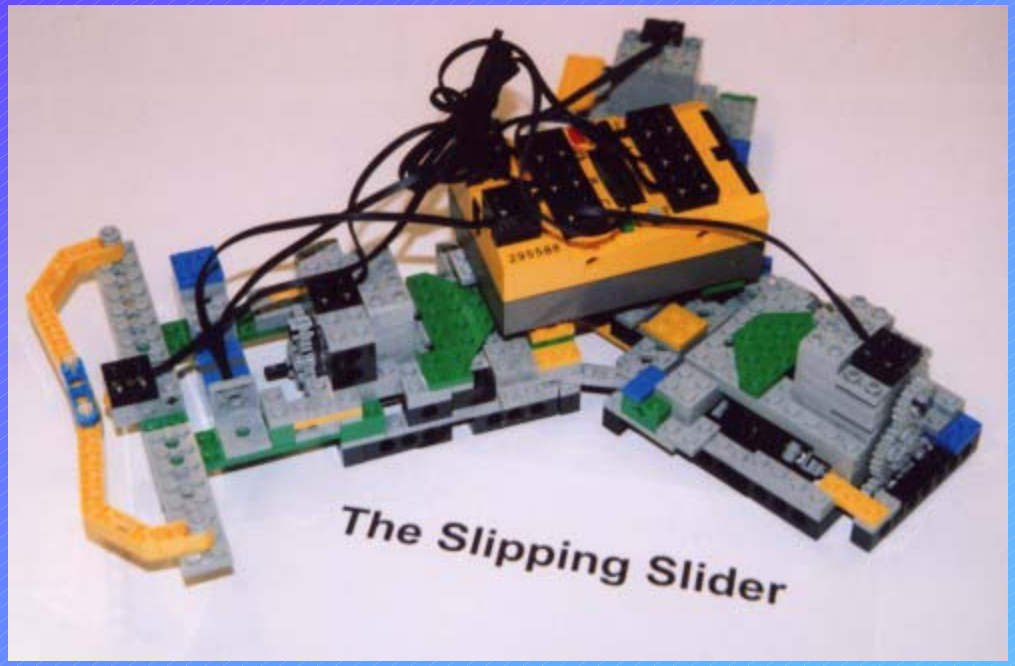


- Trustworthy Bumper
- Efficient Programming

'Go Big or Go Home' in action



The Slipping Slider

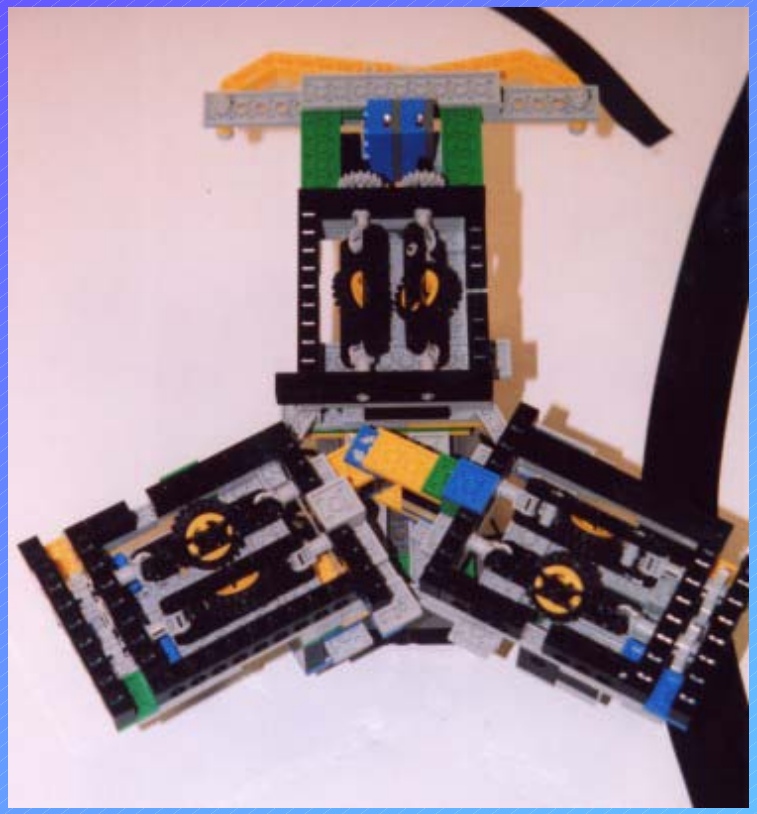


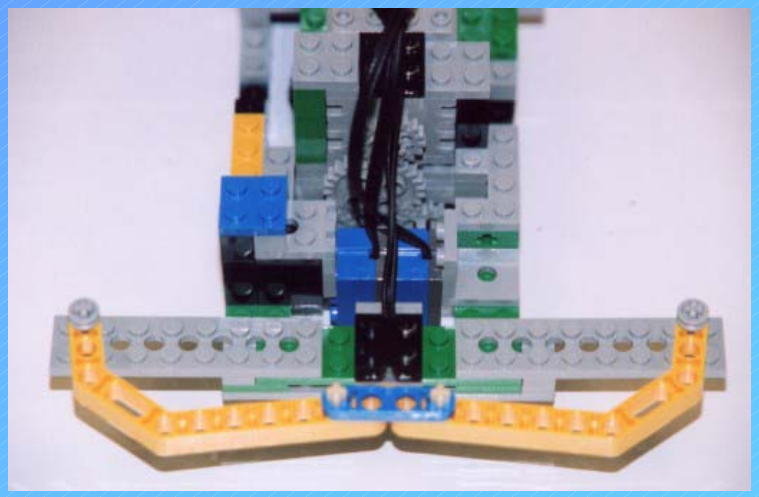
By Jason Schatz and Lee Polito

- Decided to go with smaller design because it would be easier to build.
- Mechanical problem of holding all 3 sides onto center and make sure axles don't fall off.

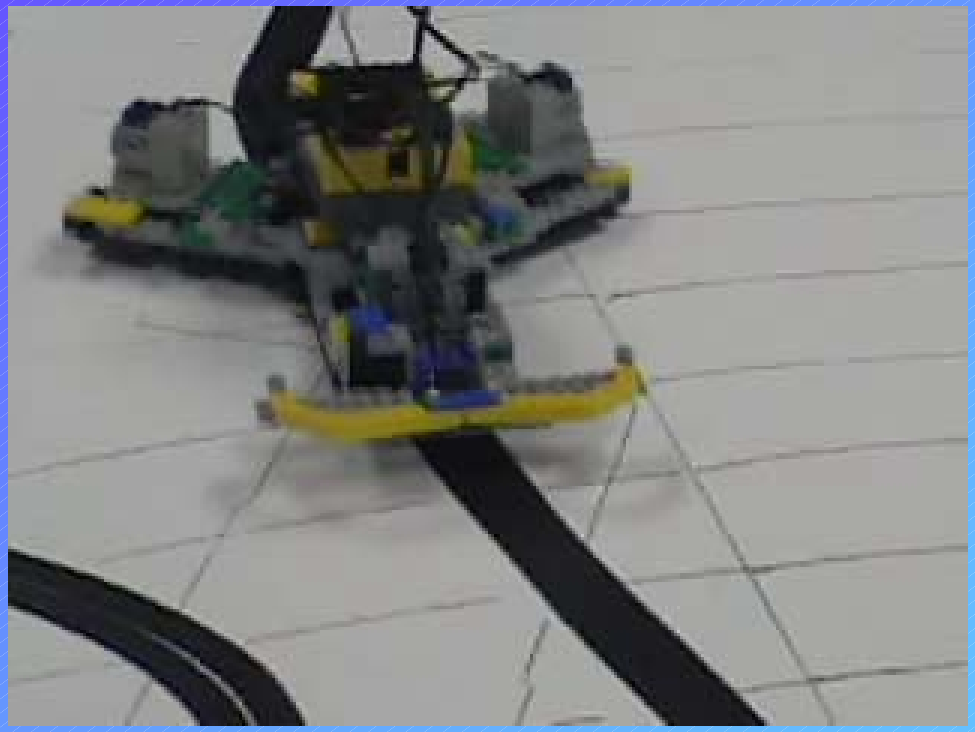
  -reinforce bottom and axles
- Programming problem of telling which way to turn when totally off track. –use flags
- Programming problem of having robot bump, turn around and find the line.

  -back up robot and put in a sleep, then have it turn until it finds the line
- Tried to make robot faster by putting in bigger gear. –didn't work because not enough power
- Wheels kept slipping.
- First couple bumper designs did not work.



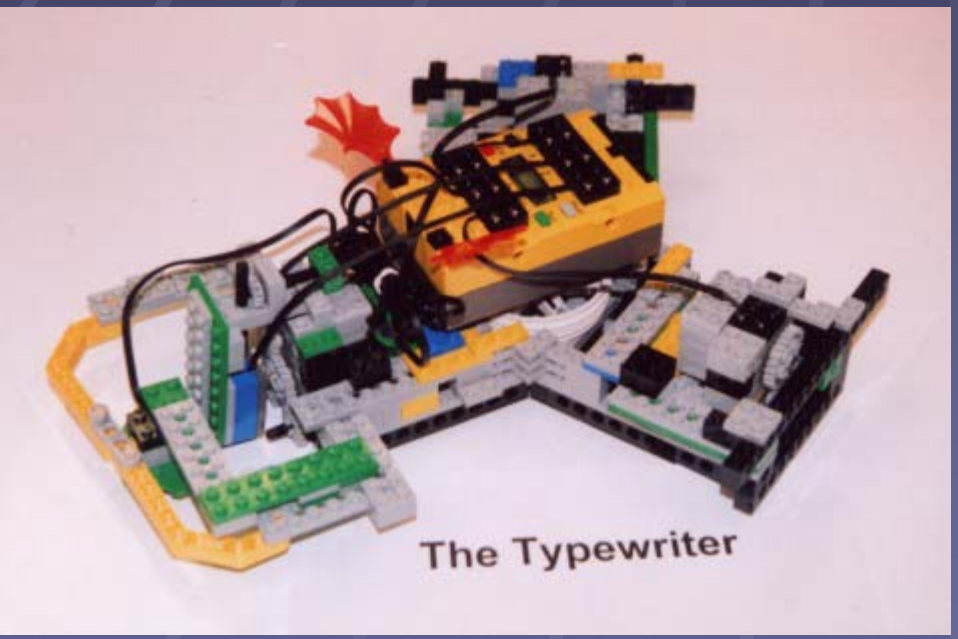


The ‘Slipping Slider’ in action



Mechanical Engineering Project

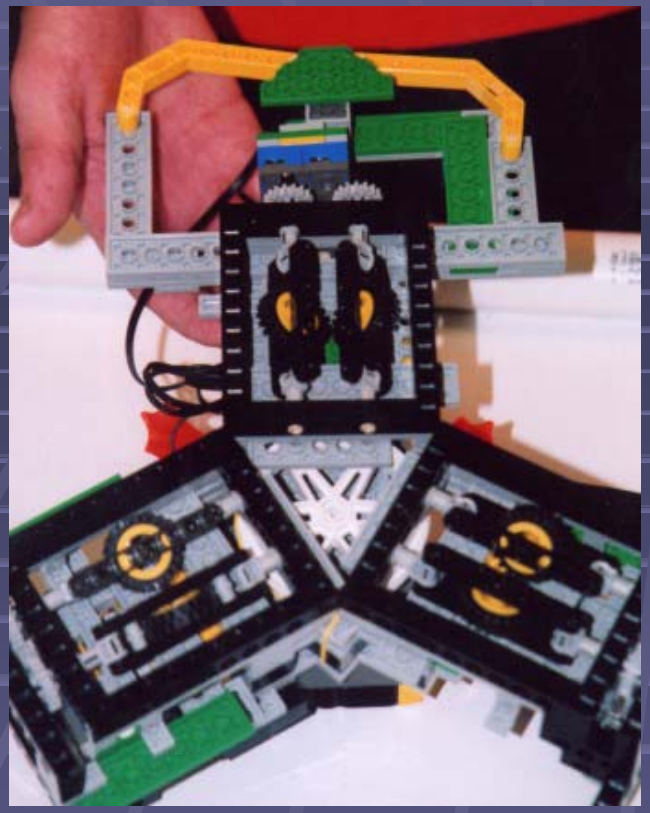
The Lego Robot – Aptly named “The Typewriter”



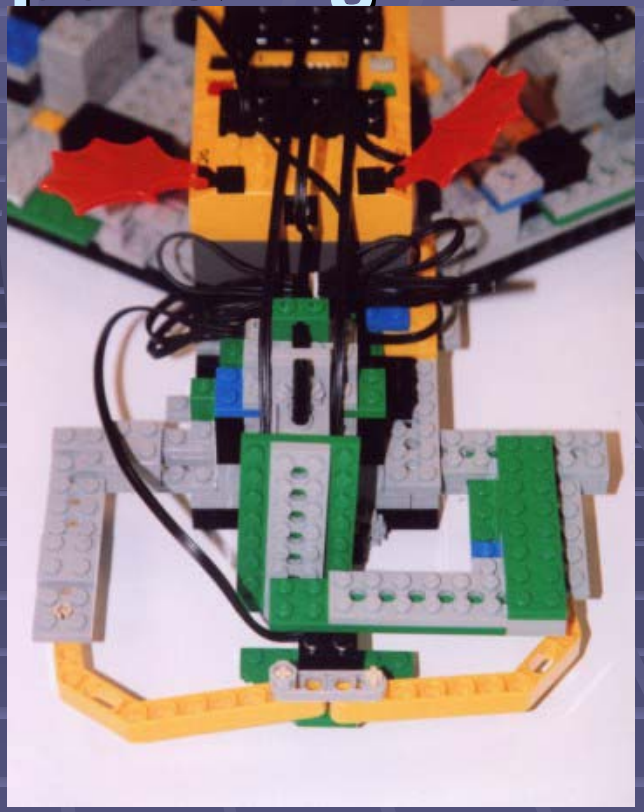
The Team Members:

Tim Palumbo & Jon Mercer

The Drive Train



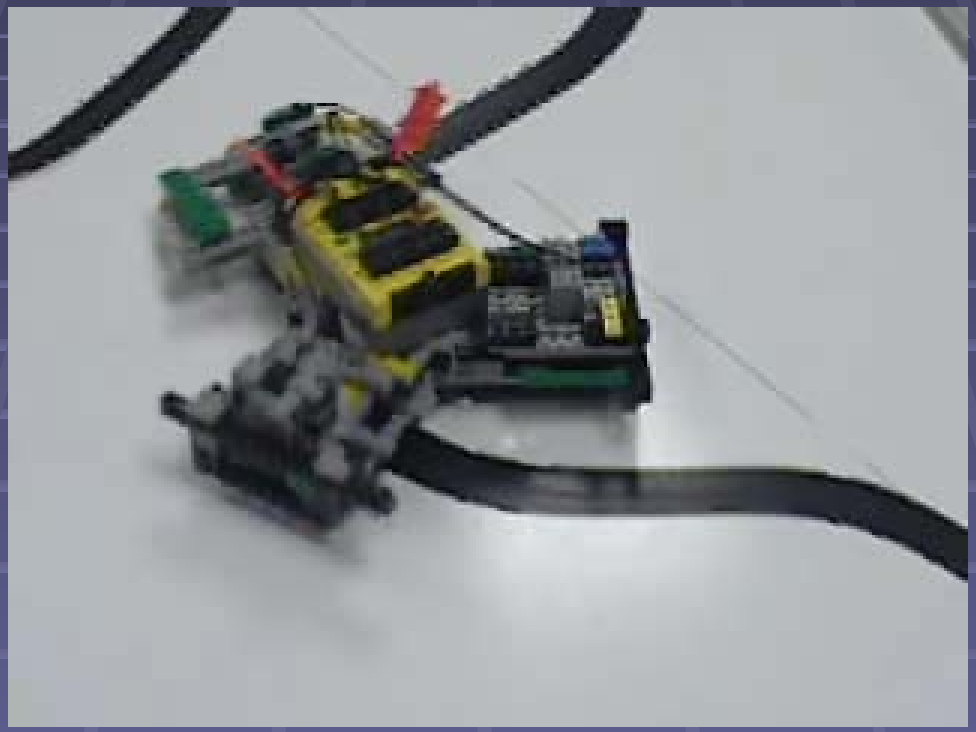
Bumper & Light Sensors



Other Key Points of Interest:

- Design Problems
- Programming Issues
- Practical Uses?
- Speed Issues with the drive train design used

The Robot In Action



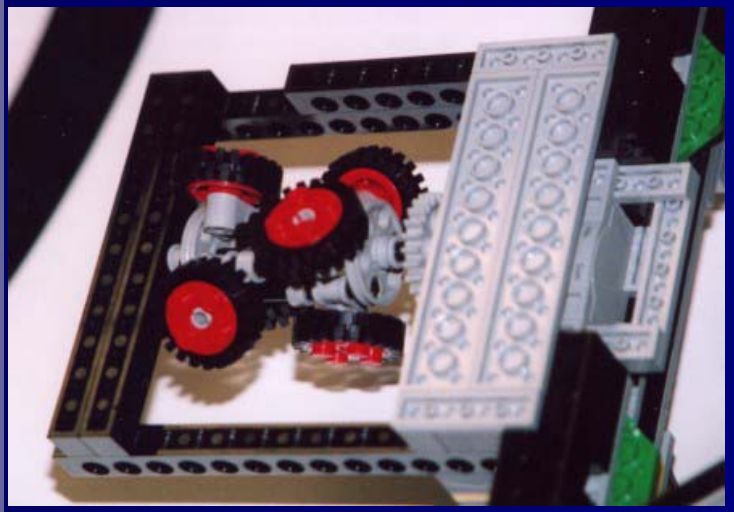
The Shocker

Mechanical Engineering Project

Issues

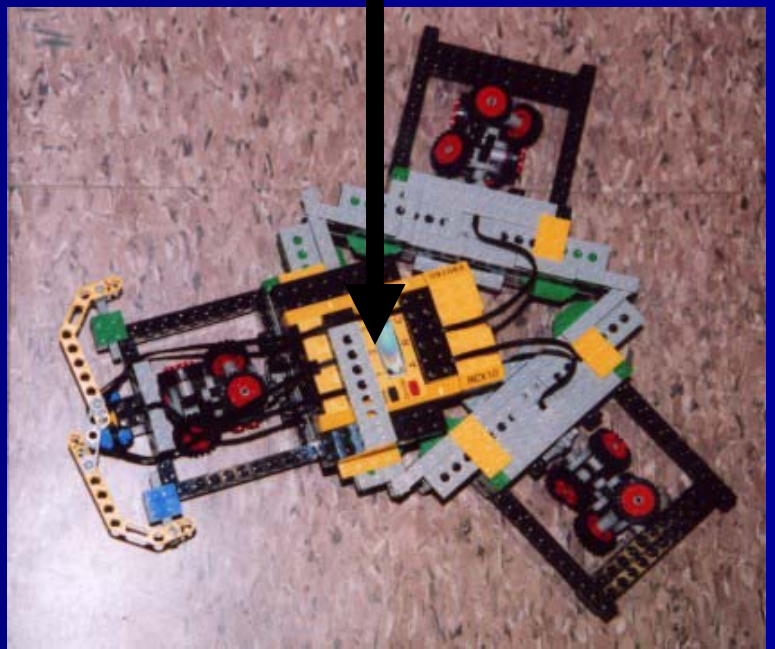
- Gear Ratio-

Our initial gear ratio was very powerful but in effect did not allow for the robot to move with any speed



Programming-

Due to the fact that none of us knew how to program, we were put at a disadvantage to groups with experience



The Shocker