ISSUE
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MONKEY BUSINESS

this issue

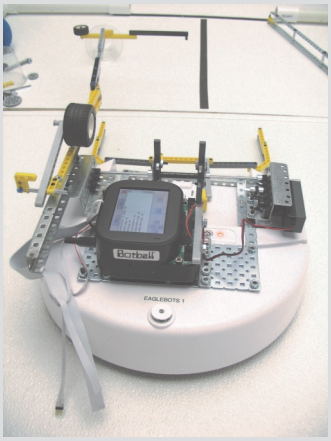
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Roomba: Armed and Dangerous

By Johnathan Chai

Student mentors led Oak Grove High School's Botball teams, the Eaglebots, to a dominant victory in the Northern California Regional, placing first and second overall. John created a innovative weapon for the Roomba-esque robot: a rubber-band loaded arm triggered with inertia by an inverted pendulum (pictured below). Recently, the team has received media attention to help their fundraising effort, which includes a San Jose Mercury News article, a local NBC news segment, and a ABC news segment (http://tinyurl.com/eaglebots). This summer, our team's participants will travel with the Eaglebots to compete in the International Championship event held in Washington DC.



Lynbrook Robotics competes in FIRST Championships

By Haochuan Ni

ATLANTA, Georgia—The atmosphere of the FIRST Robotics Championship Event in the Georgia Dome was frenzied as robots and human payload specialists battled to score the most points in the game of "Lunacy". The Funky Monkeys fought against tough competition, ultimately finishing with a 3-4 win loss record.

Every team in Atlanta displayed excellent sportsmanship and gracious professionalism by cheering for each other. Scouts recorded robot statistics from matches, the pit crew kept our robot, the Moonkey, running, and our drive team executed brilliant strategies, both offensive and defensive.

Despite seeding 60th on a field of 88 teams, the performance of the robot was exceptional. The machine experienced few mechanical difficulties and performed reliably throughout the matches. "After our matches I would check on the robot, only to find that time after time, there was nothing that needed repair," said Daiwei Li, a member of the maintenance crew.

"I believe the experience inspired many members to become more active..."

Beyond competing in the Georgia Dome, the team also made time to explore Atlanta. The trip was filled with memorable moments, notably the roller coaster plane ride, the karaoke at the Metro Diner Café, and the elegant meal at Azio. Staying at the high-end Marriott Marquis and soaking in the atmosphere of the downtown area and its varied cuisine, the team thoroughly enjoyed the trip.

On the last night of the competition, FIRST held a large end-of-the-show banquet to congratulate all the participating teams. After 3 days of intense competition and strenuous work, we enjoyed relaxing a bit. FIRST provided enormous amounts of great food and recreational activities, including moon bounces, rock climbing, and game shows. The end of the night was marked by a spectacular firework exhibition.

"I pushed our team to attend the championship because I knew it would show members how big FIRST really was, in both the number of people involved and the engineering opportunities," said John Chai. "In the end, I believe the experience inspired many members to become more active because they realized how rewarding robotics is."



Robot Moonkey Impresses Kiddies

By Haochuan Ni, Daiwei Li, and Iris Wang

Our team's robot and mascot impressed both high school and middle school students through demonstrations at Lynbrook, Miller, and Hyde.

At Lynbrook, the robot attracted a considerable number of people, including Coach Kenworthy, the basketball coach. Despite a valiant effort, the legendary ex-Lynbrook basketball star only shot 2 moon rocks into our trailer within five seconds while our robot shot 10 in the same time. The crowd gathered watched as our robot demonstrated its maneuverability, shooter, and intake mechanism.

The mascot, created by rookie member Annie Yang, paraded around the school during break periods and proved to be a popular attraction for our team. It caught the attention of nearly everyone in the spectator area, and many hugs and waves were shared. A few spectators gave a more physical approach by tackling our mascot and attempting to carry her. As Manami Yokoyama, who donned the mascot costume, recalls, "It's fun. I felt like I had so many friends; everyone came to hug me. Nobody knew it was me, so I could do whatever I wanted."

During our middle school presentations, our team presented to three classes and followed with demonstrations of the robot. At Miller, we displayed our robot to the math enrichment class and captivated students with our video and presentation. After a Q&A session, we proceeded to the gym, where the robot was located. During the live performance of our robot, the class was eager to hurl moon rocks and drive the machine. Among the enthusiastic spectators were the Miller principal Mr. Taylor and math teacher Mrs. Shah.

At Hyde, we collaborated with Cupertino High School's robotics team to present to two math classes. The students' enthusiasm and involvement displayed at Hyde was similar to that at Miller. Many students were intrigued by the machines and attempted to drive the robots themselves. Our mascot was a hit at both of the middle schools; students were awed by the its dance moves and friendliness, while others people took pictures with it. These demos will hopefully inspire a wealth of talented students to join robotics.

This Month's Q&A

Q: How can I become an honorary officer?

A: Being an honorary officer requires an individual to have invested extensive effort into the club. The requirements are listed in the Lynbrook Robotics Constitution Section G:

"Members may become an Honorary Officer after the completion of a proposal with signatures from 1/4th of the member population, a presentation, and group interview with the officer team, and with a 3/4th secret approval vote from the officers."

Officers must not only participate in club events, but also lead them, and set role models for other members.

SOCIAL

Drop the Tool, Play Some Pool

By Karena Cai

As the off season began, robotics members practiced aiming, shooting, and scoring points at our traditional social event of billiards. Instead of using manipulators and motors like our robot, our team used their hands and sticks to score points in this game. For rookie members, playing billiards was unfamiliar and challenging, but at the same time an exciting and new experience.

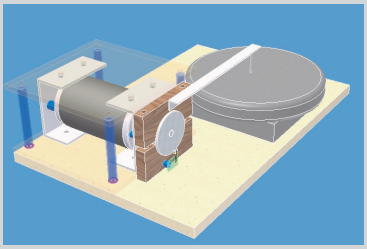
It is not too often that you get to pick up a stick and play billiards just for fun. I had a great time and enjoyed the first time experience although I wasn't that great at it. It was a good opportunity to bond with the other team members and just relax for a while.

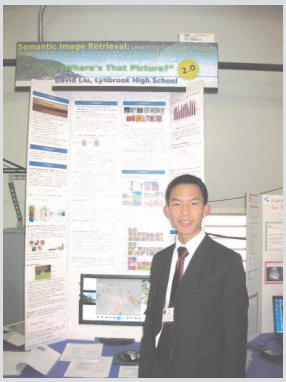
SOFTWARE

Re"Inventor"-ing the Pen

By Johnathan Chai

Students are striving to take more active roles in creating next year's robot. Our first training activity for the off season was practicing Autodesk Inventor, a 3D Computer Aided Design (CAD) program. Our first time learners were able to reconstruct a ball point pen with the software. Yuya Bessho, our chief hardware engineer also produced a neat assembly of a Prony Brake (torque measuring device):





David wins big at science fairs

By Johnathan Chai and Daiwei Li

David Liu competed in the Intel International Science and Engineering Fair (ISEF) held in Reno, Nevada with over 1,500 students from around the world for awards and national acclaim. After qualifying for this competition with his impressive performance at the local Synopsis Championship, he earned the following awards totaling $5,000 in prize money:

- 4th place grand award in Computer Science
- 1st place special award from IEEE Computer Society
- 1st place special award from U.S. Army, with 2 week exchange trip to Japan
- At the California State Science Fair the following week, David also won a third place category award.

David devised an algorithm that sorts images according to texture and color. He also wrote a program for browsing large image collections that were sorted by his unique algorithm. Congratulations David for this achievement!

Moving Up & Out

New officers emerge as seniors go on to college

By Haochuan Ni



The officer team for the 2009-2010 school year is as follows:

Co-President – David Liu
Co-President – Toshitaka Tachibana
Vice-President – Chinmay Jaju
Treasurer – Yusuke Sato
Chief Hardware Engineer – Yuya Bessho
Chief Software Engineer – Brandon Liu
Public Relations Officer – Karena Cai
Secretary – Annie Yang
Event Manager – Eric Jan
Historian – Haochuan Ni
Webmaster – Karthik Viswanathan

This year, the robotics team received an unprecedented amount of officer applications. Consequently, there was an intense competition between all the potential candidates, and the senior officers worked diligently in the selection process. The new officers shall lead the club and reach for newer heights.

Congratulations to our seniors, who will be attending several prestigious colleges in the fall:

Johnathan Chai: Harvey Mudd College with National Science Foundation S-STEM & Harvey Mudd Scholarships
Edward Lu, Daiwei Li: UC Berkeley (Computer Science, Electrical Engineering & CS)
Aashish Sreedharan: UC San Diego (Aeronautical Engineering)
Thomas Deng: San Jose State University
Avik Debnath: CSU Long Beach
Michael Wachenschwanz: UC Davis
Manisha Vasishta: UC Irvine (BioMed. Engineering)

Robot 3D Photography

By Daiwei Li

What do you do when you have a garage full of old robots form the FIRST Robotics Competition? Why, you put them on a turntable in front of a green screen, and you take photographs turning the robot two or three degrees between pictures.

Through this laborious though surprisingly quick process, we were able to create 360 view of our robot. They have been composited and posted on our website here: *http://lynbrookrobotics.com/robot2007/* (also 2006 and 2005)



Abhinav advances the robot 2 degrees for the next frame



Stack ‘em High

Over the past season, members have started a quirky tradition of forming human pyramids at team events.

Upcoming Events

- **Team Banquet at Bombay Garden, 5 PM May 30th**

  This is an event to celebrate and recap the 2008-09 season as well as thank the mentors or all their contributions to the team throughout the year.

- **JavaOne Conference, June 1 - 4**

  Members will demo our robot in San Francisco

- **Team Picnic, June 14**

  Interteam funnelator war at Rainbow Park

- **Botball Global Conference, June 30 –July 5**

  Team students, Chinmay Jaju, Alric Siu, Karena Cai, and Lucy Mou will be travelling with the Oak Grove High School Botball teams, Eaglebots & Eagletts, to compete at the Global Conference in Washington DC this summer



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