

# Taking a Peek into SSL

by Nikita Modi '20

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On Saturday, December 1, 13 students attended Space Systems Loral (SSL)'s Space Fair in Palo Alto. At this event, SSL engineers educated team members about various satellites that are used for spacecraft and communication systems. Through a factory tour and hands-on activities, students learned the engineering principles behind the technology that SSL makes.

There were three activities that the students participated in. The first was a tour of the SSL factory where members viewed many workshops in which satellites were being worked on. An engineer working at the company also gave an in-depth explanation of the different sections of engineering that come together to build a satellite. Kiana Layam '20 says, "My favorite part of the SSL space fair was the guided tour they gave us of their facilities because I learned so much about satellites and it was really interesting to see real satellites in person. The sheer size of the satellites of the spacecrafts amazed me. It was also great talking to the engineers that worked there and getting an insight about working in the tech industry. Also, great hearing that the problems we face in robotics are similar to the ones people face in the work world."

The second was a lunch with SSL engineers during which students learned more about college career options that matched with those needed at SSL. Members learned about aerospace, electrical, software, and various engineering sections.

Lastly, there was a scavenger hunt during which students got a hands-on experience with materials and subsystems used in building satellites.

Overall, it was an amazing experience and the girls would love to go again!



# Robotics Brings Christmas Spirit to Middle School Students

by Sarah Ungerer '20

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On Thursday, December 6, a few team members spent 3 hours after school representing the robotics team at Presentation High School's 8th Grade Christmas Social: an annual event for possible incoming freshmen to engage in holiday-related activities created by different clubs and programs.

This year, the girls returned with their button-making activity, in which the 8th graders were able to design blank button templates and learn how to use the button machine. A group of freshmen and sophomore robotics members guided students through the activity with Pallavi Saksena '20 supervising. Regarding this event, she said, "I was excited to take part in getting possible students interested in the robotics program. The girls seemed to have a lot of fun!"

The team looks forward to encountering the possible students on campus next year!

# Training Sessions - Control Systems & Software

by Sarah Ungerer '20

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On Thursday, December 6, approximately 15 members attended a one hour seminar to expand their knowledge on Control Systems and Software.

Rithu Paramesh '20 put together a presentation with the goal of having the team learn more about the tasks of the Control Systems and Software subteam. This includes programming (C++), building the driver station, and assembling the control systems through wiring and pneumatics. The team also learned more about the code in the robots and how autonomous works.

In recollection of her experience as an audience member, sophomore Nandita Jayanthi '21 comments, "It was a very enjoyable experience to learn about different aspects of the robot which I had not known of before, such as the PDP and PID."

From their attendance, team members have been able to gain a more in depth understanding of control systems as a whole.

# Giving This Christmas

by Christina Pham '20

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Just a few days before Christmas, on December 22, about 17 girls went to the Santa Clara Fairgrounds for the annual Toys 4 Tots charity event.

At this event, team members were involved with two engaging activities. Half of the girls showed attendees how to operate their robot, Max. As they were learning how to shoot a ball from Max, the children also enjoyed playing catch as their parents took photos.

The other half of the group became Santa's elves for the day and helped children get the gifts that they wanted in order to make their holiday a little more special! In regards to her experience, volunteer Mahal Tran '20 said, "It was fun to think like an 8-year-old in order to pick gifts that would suit the children that would receive the presents."

This was a great opportunity for the team to brighten the holiday season for the kids and they look forward to returning next year.

