



MONKEY BUSINESS

News of the Funky Monkeys, Lynbrook High School Robotics, FIRST® Team 846



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Robotics in the Real World

Using skills I learned in robotics to excel as an intern.

Kunal Patel (sr.)

Over the summer, I was able to intern at a company called Leiden Measurement Technology.



Kunal Patel (sr.) assembling the collector of our 2019 robot.
*see **Real World**, Page 2*

Presidents' Welcomes

Anna Shaposhnik (sr.)

As a freshman, it's important to explore! There are so many different opportunities in highschool and only four years to invest yourself in something you enjoy. For me I started out juggling many things: debate, mock trial, drama... but I finally found myself coming back to robotics, surrounded by passionate people with differing interests all working to improve this program and our robot. I take everything I enjoy about those other activities and apply them here: defending my designs, presenting to sponsors, attending huge international competitions, just having fun singing and dancing. As a Funky Monkey, it feels very rewarding to see the results of our teamwork each year.

To succeed you have to be proactive and stand up for your ideas, but you can do that while creating 3D animations, designing robot panel artwork, shooting photography or coming up with your own moonshot projects.

Your possibilities are endless, and should you choose to embark on your own robotics adventure, I'm extremely excited for where you will take our team next!

KLA Conundrum

Worst fear becomes greatest asset in our KLA demo

Anna Shaposhnik (sr.)

A round of applause then "Next!" It's our turn to present in front of a room full of robotics teams and KLA representatives. We hadn't practiced a lot beforehand but we had a plan, and all at once it seemed to lay in ruins. The slide presentation we sent didn't open!

Let's rewind a bit. KLA is one of our sponsors. The company is in charge of creating quality assurance machines for semiconductors. Within 10 nanometers (smaller than the wavelength of light!) their machines are able to scan a large semiconductor plate to



Presidents Anna Shaposhnik and Kunal Sheth.

Kunal Sheth (sr.)

Want to make 120 pounds of aluminum come to life? Interested in developing a business plan, team brand, or applying for your first grant?

At Lynbrook Robotics, we bring people who love robots together. Whether you want to get your hands dirty with some metal machining, write software to make robots go, or create art and animations to communicate what we do on the team, robotics has a plethora of ways to get involved.

If you're not sure where to start, or don't

*see **Kunal's Welcome**, Page 2*

detect defects. We and 8 other teams were invited to the company event "RoboGames" to



The team touring the KLA labs.

*see **KLA Demo**, Page 2*

KLA Demo, Continued...

show off our robots and compete in front of KLA's employees, raising awareness for our great program. Before the event itself we were given a 5 minute slot for a presentation about our team. And here we were, seemingly quite in trouble.

I take a deep breath. "It's okay, we can do it without slides" I smile. The KLA representatives look around and shrug. Really? Really. You see, slides are never meant to be the core of a presentation. We are. And while the other teams ranted on about the specifics of their robots, slouching in the corner, or facing away from the audience, without our slides the spotlight was on us



Kunal S. (sr.) and Andy M. (soph.) driving the robot at the KLA demo.

and on our trump card: our stories.

To my surprise it was much easier to focus on what I was saying without slides. What's more, the whole audience had nowhere else to look but at us. And so, we each described how robotics influenced us, and by the time we finally finished everyone was surprised and touched by our performance.

From this experience I took away the importance of focusing a presentation and making it personal. For our sponsors, we presented as examples of the success of the robotics program. And for the students we summarized how our team is unique in its organization and professionalism.

Real World, Continued...

Leiden Measurement Technology is a research and development company that specializes in developing high-end scientific instruments using microfluidic, optical, spectroscopic, and chemical extraction techniques. These devices have been used in a variety of different applications, such as water analysis, environmental analysis, biomedical analysis, and space exploration. One of the more recent devices they created was a special spectrometer that could detect trace organics in water. Leiden hopes

"This is where my experience with robotics really helped out."

that this spectrometer can be used on space exploration missions to places such as Europa or Mars, to help analyze these environments in an attempt to look for evidence of life in these places.

As an intern I designed various parts using CAD, and then 3D-printed them. This is where my experience with robotics really helped out. Additionally, as this was a start up, I would help with administrative work, as well as help them out with the organization of their lab space. Overall, I enjoyed my internship with Leiden Measurement technology because I learned quite a bit and gained valuable work experience.

Team Founder Retires

Mr. Xie's note to the team

Mr. Xie

One of FIRST Robotics core values is to inspire young people in STEM. As an experienced and well organized veteran team, we have committed to spread this core value through coaching other teams. Over the last 18 years, our team has done tremendous work in this aspect.

We can do more. A few years ago, there

were only a few FRC teams in China. Now, there are more than 80 teams across China, and the growth continues. As Mr. Zheng, coach of a team from Beijing, said, "China teams need mentorship from US teams like

"A few years ago, there were only a few FRC teams in China. Now, there are more than 80 teams."

the Funky Monkeys to improve the performance of Chinese teams in robot design and team management." He hopes Team

846 can be in Beijing in the summer of 2020 to coach teams in Beijing.

We should do it. We can do it!



Our presidents presenting Mr. Xie with a team photo.

Upcoming Events

Sep 28-29 Chezy Champs Bellarmine College Prep.	Oct 1 Parent Meeting 7:30 pm Auditorium	Oct 5-6 CalGames Woodside HighSchool	Oct 5 Open House Intuitive Surgical Headquarters
Oct 7-11 Workshops Start Afterschool Rm. 608	Oct 16 FUHS Call-A-Thon	Dec Winter Social TBD	Jan 4 Kickoff Build Season Begins!

Kunal's Welcome, Continued...

have any prior experience building robots, do not worry! Come to our fall workshops and we'll show you the ropes. Attending workshops as a freshman not only helped me to further explore my interest in programming, but also broadened my horizons to electronics and machining too.

The past three years on this team have been extremely rewarding for me. Robotics even helped land me my first job, a software development internship at Cisco. I'm glad I decided to join the team when I was a freshman. I hope you too will find your place on this team, and I look forward to seeing you around!