



The Neonatologist is the first FIRST robot that the Robodox has built since longtime coaches Mr. Vanderway and Dr. Koroleva have left the team. Despite this setback, team 599 was able to build an excellently engineered robot that would compete in this year's FRC game: FIRST Stronghold.

# THE NEONATOLOGIST HAS MANY UNIQUE FEATURES.

TANK TREADS Team 599's robot features tank that can go over uneven obstacles, such as the Rough Terrain.

LIMBO-READY Neo is under 15", which allows for easy access under the Low Bar obstacle.

#### **CATAPULT**

robot's The catapult pistons system utilizes that allow for high-goal points.

# **PIVOTING**

The Neonatologist's catapult system utilizes pistons that allow for highgoal points.





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#### THE ROOKIE EXPERIENCE

Rookies are the core to the success of the Robodox—Their experience and participation on the team allows us to keep going for years to come. In this month's edition of the newsletter, we get to talk to rookie and sophomore Neha A. (pictured to the right) about her experience on the team so far.

**Corine** What's your role on the team?

**Neha** I am part of the electronics and pneumatics team. Before build season, I was learning everything about the system and as build season was going on, I began designing, wiring and tubing our new robot, the Neonatologist.

**Corine** This was your first FRC build season with the Robodox. What did you expect about build season before starting?

Neha I expected a lot more chaos. I think the class over exaggerated a bit. Maybe it was just electronics, but we were working hard for only a week once everything else was built. And there was a lot more designing than I thought. I came into build season thinking designing wasn't as important and it was all about manufacturing, but that's not true.

**Corine** What do you think about this year's game, FIRST Stronghold?

**Neha** It's very creative. The fact that it was centered on a Medieval theme makes it super exciting for me. It's actually surprisingly complicated. I didn't expect all the different obstacles and the complexity.

**Corine** How was build season for you? What was your greatest accomplishment during these past 6 weeks?

**Neha** Build season was pretty great. It taught me a lot about managing my time and stress, especially because I had a lot of academic things happening at the same time. I think my greatest accomplishment was getting through build season with all the skills that I have learned and polished.







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#### BUILD SEASON BY THE NUMBERS

180 hours in total • 9 Talon SRXs on the robot • 6 weeks spent building the robot • 4 new computers thanks to Cooler Master • 1 new robot

### LOS ANGELES REGIONAL

At 6:45 AM on Thursday, March 10, the Robodox gathered at K-2 before heading out to compete in the Los Angeles FRC Regional at Long Beach. The Robodox were filled with anticipation to show off their robot, the Neonatologist, the product of 6 weeks of hard work. Were they going to do well? Would the robot do as expected? Unfortunately, there was not much time to test the robot before build season ended, so the team hoped for the best. But knowing the Robodox, they would not give up, even if things didn't turn out as planned.

The Robodox later arrived at the LA Regional and rushed to set up in the pits. Like previous years, the Robodox again set up their FIRST Aid station that aimed to help teams with their robot-related problems by asking other teams for help. And thanks to the new computers that their sponsor Cooler Master helped to fund, the Robodox were able to better organize the FIRST Aid system of borrowing and lending materials.

In addition, the Robodox were able to use a brand-new scouting system—programmed by yours truly—in order to experiment with making scouting more efficient.

Overall, it seemed as if the Los Angeles was all about team 599 learning and doing new things. While the team did not win any awards or compete in any of the final matches, the 'Dox took the opportunity to learn about working without their old coaches and preparing for the next FRC regional.



The LA Regional was an important learning experience for the Robodox as their first year without their original coaches. Top left: The Neonatologist before a match on the Stronghold field. Top right: Senior 'Dox member Hersh works with Mr. Wong, a longtime mentor. Bottom: Team 599 poses after the LA Regional with other teams that were sponsored by Cooler Master.

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### VENTURA REGIONAL

Although the Los Angeles Regional did not go as the Robodox intended, they were excited to head over to Ventura College for their next FRC Regional in order to prove themselves. (This was the second year that the Robodox would attend the Ventura Regional — and the second year that the regional had taken place.)

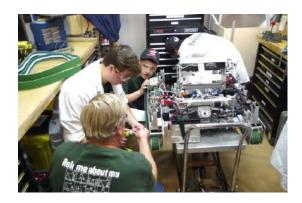
The Robodox learned a lot from their experience at the previous regional, and sought to put their newfound ideas and skills to the test. Unlike in LA, the Neonatologist was able to compete in many, if not all of its practice matches on the first day. The team was much more prepared to compete with other teams, thanks to what they had learned from LA. In fact, the Robodox did very well during their matches — they were mostly ranked under #20. And during one qualification match, the Robodox even scored 50 points on their own by crossing defenses on the FIRST Stronghold field. Team spirits were up, and members were motivated to continue their success.

Unfortunately, it seemed that some things took a turn for the worse—the Neonatologist's tank treads became damaged after repeated use. However, this was expected — the tank treads were difficult to implement, and there were very few teams at the regional who had the same drive system. But the Robodox fought on and continued to repair their robot in the ever-busy pit.

At last, on the final day of the competition, the Robodox gathered around the FRC field with all of the other FRC teams to watch the alliance selections. Like during the previous competition, the Robodox did not place in the top 8 teams. However, the team hoped that their unique robot and ability to cross all but one defense would earn them a spot as a second or third choice for the top alliances. To their dismay, the 'Dox remained unpicked. And while many team members were saddened by their loss, the Robodox remained in high spirits for the remaining part of the Ventura Competition. Members in the stands had fun cheering for the teams that made it through, the quarter finals, semi-finals, and the finals. (Of course, they also had fun doing the Cupid Shuffle, the macarena, and the Cha Cha Slide. But that goes without saving.)

As the three-day competition came to an end, the







### **VENTURA REGIONAL (CONT.)**

FRC judges gathered at the center of the playing field to give awards to the respected and esteemed teams that attended. Hopes were low when (cont. on page 5) the Robodox did not win the award they desired — the Gracious Professionalism award, which the 'Dox has the highest record of throughout the world. However, the unexpected happened — as the emcee announced the Excellence in Engineering award, the Robodox did not think to hear their name. But as as the words 'Team 599, the Robodox' rang across the room, hearts soared among all the members. Team 599 ran eagerly down the stands to receive their congratulatory high-fives from all the judges, and receive their trophy and plaque. What exactly about the Robodox's Neonatologist stood out to the judges, you ask? It was the tank treads—the feature of the robot that ironically had caused many problems throughout the second day of the competition. Fortunately, the 'Dox were able to quickly repair their issues, and were able to use their soon-to-be-award-winning drive feature to their advantage.

The Robodox would like to thank their mentors, parents, and coaches for helping to support the team. Without them, receiving the Excellence in Engineering award would not be possible.

Who rox? 'Dox rox!





The 'Dox proudly display their Excellence in Engineering award. Top: The Robodox, our mentors, and our coaches. Bottom: The seniors of the team.

## FRC SEASON HIGHLIGHTS



**UPCOMING EVENTS** Balboa Engineering Workshop (April 4) · VEX Kickoff (April 25) · Robodox Banquet (May 20)



The 2015-2016 Robodox PR Executives would like to thank the team members, parents, coaches, and mentors who helped to contribute both the information and photos within this newsletter. Questions and suggestions are welcomed at the email pr.robodox@gmail.com. Thank you!