

## *WEEK FIVE*

# Cranbrook Robotics Camp

July 23, 2021

Dear Parents,

We are ending the fifth week of summer robotics camp and nearing the end of summer. One final sixth week of robotics camp lies ahead of us. We have enjoyed seeing campers who have returned to robotics week after week. They display a real passion for how robotics materials can be used to dream up new concepts. It has been great getting to know new campers this week and watch as they expand their understanding of what is possible with robotics. In each camp, campers followed detailed instructions to build a robot to specific specifications, then had an opportunity to use their imagination to make a creation of their own. The 4th to 7th grade Vex IQ robotic students had a chance to visit the natatorium for a much-needed swim on Tuesday, followed by the 1st grade Lego WeDo and 2nd to 3rd-grade Boost groups on Wednesday. When weather permitted, campers had an opportunity to hike our beautiful campus. While we are unfortunately not able to invite parents into our buildings this summer for our traditional Show and Tell on Friday afternoons, we have included various pictures and stories about our exciting week in this newsletter.

Gratefully,

The Robotics Camp Team



[Buy Lego WeDo 2.0](#)



[Buy Lego Boost](#)



[Buy Vex IQ](#)

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## *SUMMARY*

# 4th to 7th Grade Vex IQ

Our Vex IQ instructors, Mr. Elmer, Mr. Daniel, Ms. Aishwarya, and Mr. Emersion have been looking forward to a great week of camp! All of the campers made this week exceptional, as everyone learned how to construct and program their robots for the Vex IQ competition. While a few students came in with prior knowledge of Vex IQ robots, most were newly introduced and each individual rapidly grew their understanding. Campers also enjoyed swimming at the Natatorium.

This season's competition is called "Pitching In". The object of the game is to attain the highest score by scoring Balls in Goals, clearing Starting Corrals and by Hanging at the end of the match. Campers could build a robot from instructions, called "Fling", a new design called "Campbot" or create their own design. Robots were programmed using a graphic software called Robot Mesh Studio.

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## VEX IQ REFLECTIONS

**Aalaya** continued improving her Campbot. She spent a lot of time practicing and working on strategy.

**Graham** built a robot with a second arm to grab the high hang bar, which resembled a giraffe. After a couple of design iterations, he was able to consistently do a high hang.

**Alen** made his robot quickly and made fast friends with Will and Alex

**Avyay** built his robot with a longer arm for greater reach.

**Alex Medler** spent a lot of time practicing with his robot, seeing how much power it had and what it could do.

**Calvin** developed his own unique design. He went through many versions before finding the right combination of structure and balance so that it could successfully hang.

**Gavin and Sachin** worked together on their robots, starting with basic robots, then upgrading them to do a high hang.

**Phillip** built a robot with many features, including a front intake to help keep balls in the robot. He widened it for more ball capacity.

**Rithwik** built a robot with a high-hanging arm. He added a claw to grab the balls and an extra arm in the front to help keep the balls secure.

**Toby** added a second arm to his robot that would trap balls and keep them from rolling away. He also coded the arm to work autonomously for skill runs.

**Krishna** decided to go for the high goal points and built a version of “Fling” to do it.

**Ishan** continued working on his robot from last week, one that has a double-jointed arm and can do a high hang consistently.

**Will** added an arm to his robot and modified the chain drive to power all four wheels.

**Michael** modified his robot from the previous week and added a claw, creating “Tank Mk IV”. Micheal also impressed everyone with his drawings of high-performance cars.

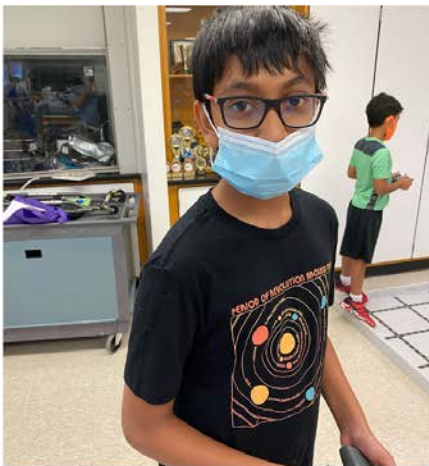
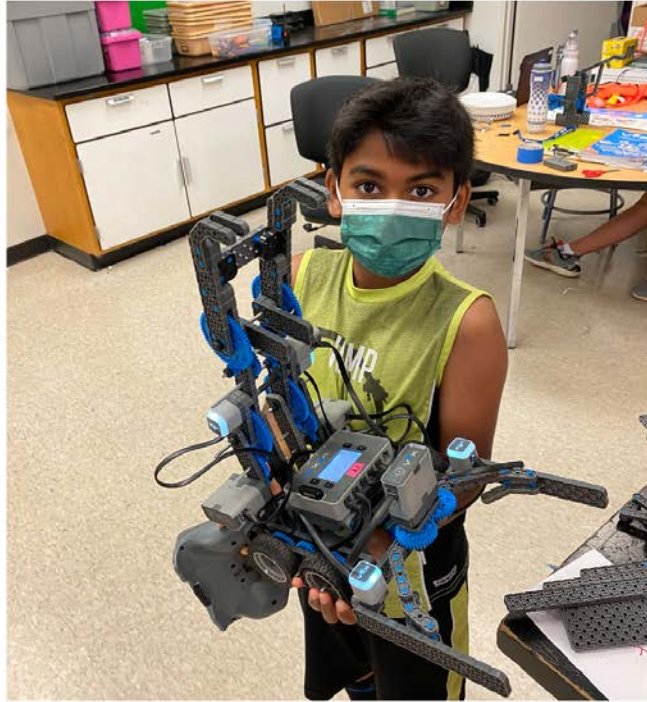
**Alex** continued with his robot from last week and spent time optimizing his strategy.

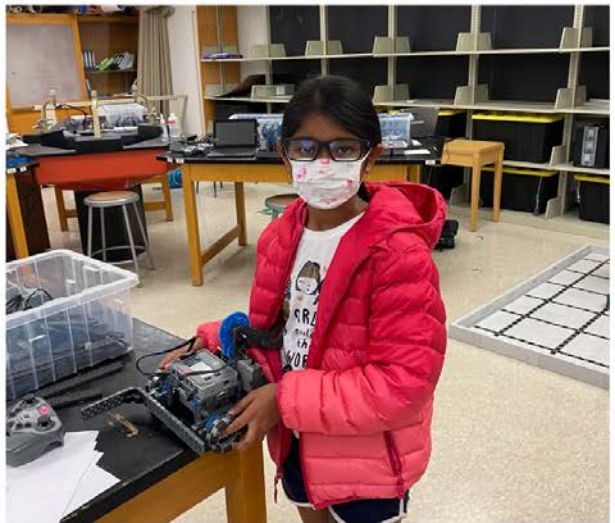
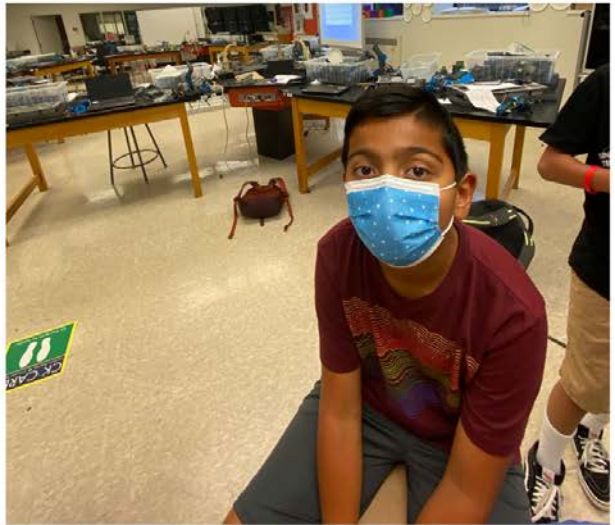
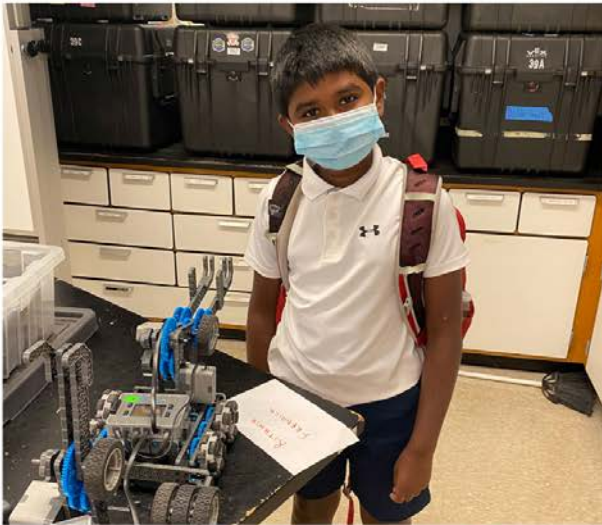
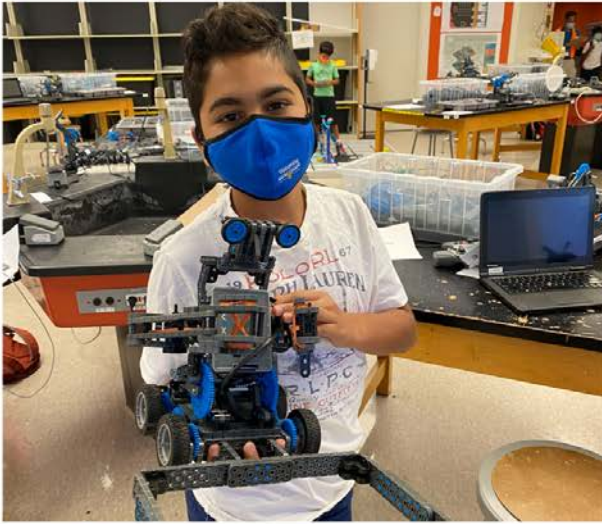
**Jude** continued with his humanoid robot called “Monkey Dude”.

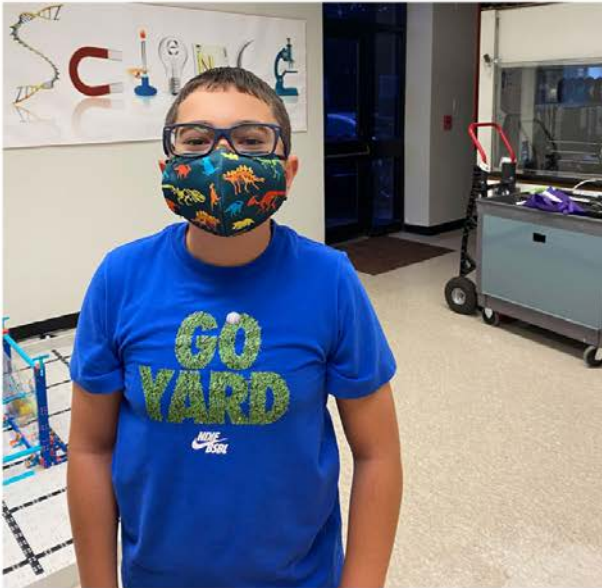
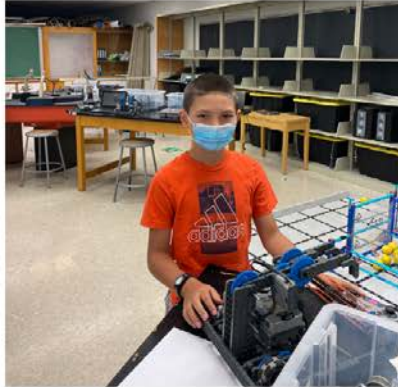
**Simon** continued to use his “anti-viris” robot.

**Asher** continued working on his robot from last week.

# VEX IQ PHOTOS







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## *SUMMARY*

# 2nd to 3rd Grade Boost

Lego Boost Creative Toolbox guides campers through the building and coding of fun, interactive robotics. This week's campers were particularly creative with some project ideas. They were also energetic and excited whenever we went outside for a snack, to play ball, or on a hike around campus. We also finished off the week with an optional battlebot tournament that combined the kids' love for competition with their natural talent at robotics. This week's instructors were Mr. Ben and Mr. Avaneesh.



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## *BOOST REFLECTIONS*

**Sophia:** Sophia's very quick with building and completed her robot cat. She is also curious as she explored more aspects of programming. Her love for robotics is clearly displayed with her eagerness to learn. We look forward to having her again.

**Noa:** Noa continued to work on her lego boost cat this week. She displayed great skill at finishing all the activities on the lego boost app. She also enjoyed reading, swimming, and snack time while at camp. We feel that she had a great time during the couple weeks we were instructing her, and we hope she continues to build robots in the future.

**Leo Frank:** Leo spent the week working on his tank robot. He was great to have, as he was always helpful to his classmates, including when he tried to find pieces for others. He also loved recess and swimming while at camp. All in all, he was a great camper to have this week.

**Kameryn:** Kameryn decided to work on the cat robot as his lego boost project. She showed great enthusiasm at this camp, and she enjoyed our outdoor activities like going on a hike. She had a great time this week and we hope this experience continues on to next week.

**Jack:** Jack went for a more creative approach to robotics this week, experimenting with several designs that he liked. He continued to be a great camper and we enjoyed his presence with us these past few weeks.

**Henry:** Henry decided to build the manufacturing plant robot as his lego boost project this week. He showed great improvements in his building techniques, finishing all the levels very quickly. He has had a great time at robotics camp, and we hope to finish off strong with the last week next week.

**Edison:** This week, Edison got to work building a guitar robot as his lego boost project. He showed an exemplary work ethic when building, as he finished the robot at a record pace. He was a great camper to have, and we are sure he had a great time this week.

**Austin:** Although Austin missed a couple of days, he still had a great experience during the days he did show up. He built a guitar, went swimming, played outside, and did a lot of other activities which he enjoyed. All in all, he had a great experience this week.

**Aya:** Aya continued to be a great camper this week, as she continued to add on to her tank robot. She also enjoyed the pool and recess, among other outdoor activities. She had a great time this week and we are excited to have her back next week.

**Augustus:** Augustus spent the week building a manufacturing plant as his lego boost project. He was a very fast builder, finishing his robot at a record pace. Because of this, he was able to build a second robot, which exemplifies his strong work ethic. He had a great time this week and we hope he continues this experience next week.

**Antony Hunter:** Antony was another camper who had a great time this week. Although he was a bit quiet, we could still tell that he really enjoyed robotics and liked to build his manufacturing plant robot. He was a great camper and we would love to see him return next week.

**Jonathan Leibowitz:** Jonathan spent the week building a guitar as his lego boost project. Although he needed a little help finding pieces along the way, he persevered and was able to mostly complete it while having fun with his classmates.

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**Anthony Schmitt:** This week, Anthony chose the guitar as his lego boost project. He was able to fully complete the build a day early and moved on to programming it to play songs. He then went on to make a drill. Overall, Anthony was a great student in class this week.

**Bram:** This week, Bram continued to expand his programming knowledge using a lego spike kit. They worked with gear ratios to create a fast-moving robot as well as a robotic arm. As always, he is very well behaved and I look forward to having him next week.

**Christopher:** Christopher chose the guitar as his lego boost project this week. He was a fast builder, finishing his robot in just 3 days. Christopher then spent his time helping others building their robot and finding pieces. He was a pleasure to have in class.

**Colin:** Colin chose the manufacturing plant as his lego boost project. This is one of the hardest projects, requiring both intense building and programming skills. He took the challenge in stride and was able to produce a working version by the end of the week.

**Dylan:** This week, Dylan made the cat as her lego boost project. She was always hard at work on this very detail oriented project. Whenever we went out to recess or lunch, she was always well behaved and listened to the counselors well. She was a pleasure to have in class this week.

**Ivan:** Ivan spent the first part of this week building the cat as his lego boost project. He got through the first part of this complex build, then chose to start collaborating making battlebots with his other classmates. I look forward to having him again next week.

**Jonas:** Jonas spent this week making new friends with classmates, who were all amazed by the bulldozer he has spent previous weeks working on. He led the others on building their own projects, as well as working on a team battlebot. I look forward to having him again next week.

**Jonathan Webster:** This week, Jonathan chose the bulldozer as his boost project. He worked diligently and was able to complete it by Wednesday and begin battling other campers with it. He was very well behaved, and a big help to the counselors.

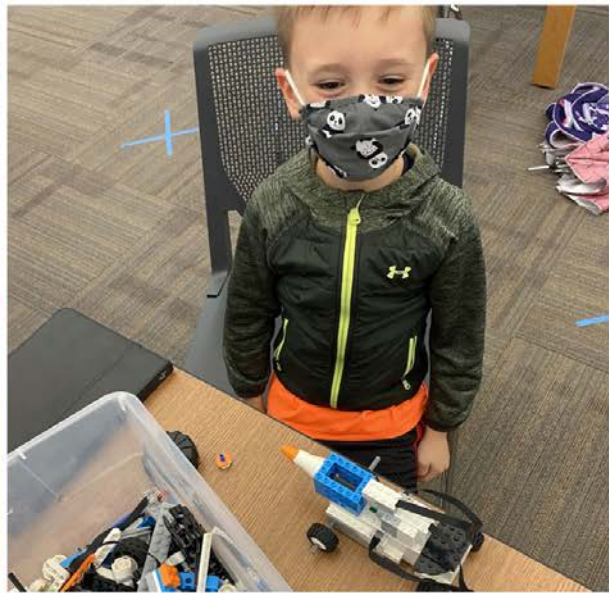
**Samuel:** Sam spent the week building a variety of creations, concluding in a robot with an orange plow on the front. Sam excels when he is able to work independently. He is also very energetic when with his fellow classmates.

**Leo Hinde:** Leo spent this week diligently working on the robot as his lego boost project. He has made friends with his fellow classmates and is always running around and energetic when we go outside. He was always very respectful, and a pleasure to have in class this week.

# BOOST PHOTOS







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## *SUMMARY & REFLECTIONS*

# 1st Grade WeDo

**Monday:** All the campers had a great time this week building their robots and working on their projects! As usual, the new campers started off by building milo rovers as an introduction to WeDo. Ardent had lots of fun getting his Rover all the way across the room and many of the campers enjoyed racing the rovers.

**Tuesday:** Ethan built many small but impressive things including a propeller plane with a captain and a laser shooter.

**Wednesday:** After having fun splashing around in the pool Enzo was able to only use pictures to build a very impressive snake. Afterward, he created an incredible T-Rex with a fully functional jaw.

**Thursday:** Charlie created a battlebot with a separate catapult, Ella helped Avery build a house for their creations throughout the week. The campers worked on their arts & crafts projects as well. Many of them were able to fold their own origami frogs.

**Friday:** Unfortunately it was a rainy day, but that did not stop us from having fun! Miles redid his drill creation from last week, adding wheels and making it into a battlebot. Everett built a cool race car that blew the competition away.

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# WEDO PHOTOS

