

# Cranbrook Robotics Day Camp Newsletter

7/19/2019



Dear Parents,

The campers had an awesome week at robotics! Many of our multi-week campers had ideas to share with our new week 6 campers and our new campers had a great time jumping right into the fun! Our super-knowledgeable instructors came up with unique ideas to keep all campers of different experience levels challenged and happy. The campers amazed us with their creativity, collaboration, and curiosity. Many campers choose to go above and beyond the base curriculum and explore concepts in coding and/or design. The campers visited the Science Institute on Tuesday and we were happy to squeeze in a trip to the natatorium late in the day on Thursday since our regularly pool day had to be rescheduled – thanks to all the parents for your patience and understanding at pick-up on Thursday!

The campers are looking forward to sharing all their cool projects with you at the Show & Tell this afternoon!

There are three different robotics groups this week. The different groups all have different Show and Tell programs planned in different locations.

We are asking ALL parents who are able to attend the Show & Tell this afternoon to please park in the [550 Lone Pine Road](#) parking lot. Signs will be posted on campus and on Lone Pine Road to highlight the route. Camp staff will direct you to the proper location of your specific child's robotics group once you park in the lot.

*Parents with children in the Vex IQ (4th-7th grade) group will be directed to the [Performing Arts Center](#) (PAC). Please plan to arrive at 2:30 when the exciting finals are scheduled to begin. Winner award certificates will be presented at the conclusion of the tournament!*

*Parents with children in the Lego WeDo (1st grade) and Lego Boost (2nd and 3rd grade) groups will be directed to the appropriate classrooms located in the Robotics Lab in [Hoey Hall](#). Please plan to arrive at about 2:45 to meet your child's instructors, see your child's camp room, and to hear about your child's awesome robotics projects!*

*For those parents not attending the Show & Tell, please follow normal pick-up procedures.*

**Thank you to all our Week 6 campers for sharing your summer with us at the Cranbrook Robotics Day Camp! This is our last week of robotics camp for the summer. We hope to see you all next year!**

**[For Any Parents interested in Purchasing Kits used in Robotics Camps this Week, Here are the Links:](#)**

**Lego WeDo 2.0**

**<https://education.lego.com/en-us/products/lego-education-wedo-2-0-core-set/45300>**

**Lego Boost Creative Toolbox**

**<https://shop.lego.com/en-US/product/BOOST-Creative-Toolbox-17101>**

**Vex IQ Super Kit**

**<https://www.vexrobotics.com/228-2500.html>**

**Below is a summary of the three robotics classes we had at camp this week:**

## **VEX IQ**



This week in Vex IQ, instructors Miss Emma, Mr. Nikhil and Mr. Emerson worked on helping campers build more complicated robots to compete in the Vex IQ competition on Friday. From setting new high scores in both the competition and skills challenge, the students have shown their growth and development with their creative and technical skills. Apart from in the class, students also went to the natatorium, explored the science museum, and played outdoor activities such as capture the flag.

Heer continued to be an incredibly dedicated and almost unbeatable force by constantly practicing and making tiny adjustments to improve. She also teamed up with new campers Joan, and Yi-An. Together they built another robot and worked on a complicated autonomous program with a line follow.

Benjamin, Graham, and Spencer were all completely new to vex IQ this week but that did not stop them. Benjamin worked quickly and efficiently on his robot, a two bar with a tread lift on the back for an extra cube, and had it nearly complete by the end of Monday. Graham and Spencer's robot, a similar design, was also up and fully coded very fast. Good job!

Rylan and Ethan returned this week eager to win. They added an elevator lift to the back of their robot, doubling its cube capacity.

Jackson, Jameson, and Alex K modified their 2 bar, replacing previous design errors and making it much more stable. All three campers showed off their skills in the classroom this week and were able to reach new heights.

Hangyul and Kevin helped other campers and practiced driving this week. Despite missed days they managed to get a lot done.

Alex M and Alex R broke the trend of bots by building a tread bot with a h-drive. They solved the tipping problem by adding weight on the back that doubled as a controller rest. Even when challenges arose they quickly solved the problem and got back to practicing.

Returning camper Anthony teamed up with Jared and Brennan to fortify Anthony's robot and completely re-code it.

New campers Jonathan and Dominic collaborated to build a two bar with a clever axle lock on the back to stop the robot from exceeding size limits.

Nikhil let his creativity flow this week. Along with making a few changes to his robot, he made an iron man chest plate completely out of vex IQ pieces.

# Lego Boost



Lego Boost Creative Toolbox guides campers through the building and coding of fun, interactive robots. This week's campers were particularly creative with some innovative project ideas. Mr. Daniel, Ms. Suba, Mr. Jason, and Ms. Iliana kept them busy and on task all week!

Assad: Assad is a lot of fun to have again this week. He is always happy to work on his Legos during work time, and is even happier when it's time to cut loose and run around during break. Assad and his brother have a lot of fun playing together and bring a lot of energy to the camp.

Nolan: Nolan did well to overcome his shyness quickly, making friends and demonstrating a remarkable willingness to continue working to build his robot. He's worked well with Instructor Ilina, and thanks to her help has been confident

Caleb: Caleb and Tabitha joined their efforts to build their own original robot, building it to be as cool as they wanted without the constraints of the instruction manual. They have put in consistent effort to troubleshoot their own robot and make sure it functions like they want it to.

Simon: Simon showed exemplary willingness to rebuild his robot and to help out other campers in need. He is working hard on doing the cat build. Simon is really doing his best to try and make the cat in only a week, which few campers have been able to do.

Maxwell: Maxwell was a great camper to have this week. Max is a methodical worker that likes to take his time, but makes steady progress on the truck. It's too bad that this is the last week of camp, but he made a genuine effort and we all appreciate it. He gets along well with his peers and is polite. Maxwell is the kind of camper we're always happy to have more of.

Joey: Joey continues to build his custom ideas this week. He has been modifying his car and making it bigger and better. He also still is having a great time making friends with his neighbor, Cameron. They do a lot together and these kinds of connections are what camp is all about.

Jinlin: Jinlin has demonstrated an extraordinary work ethic, assembling his robot at lightning speed. He is very self-directed and industrious, choosing to find the counselors as a last resort rather than a first. He was one of the first to finish his robot and has had a great time modifying it after he was done.

Tabitha: Tabitha worked with Caleb this week to build an original robot which was a really impressive collaboration project. Tabitha has a lot of energy and loves to play during our outdoor or swim time. She always has a smile on her face and is happy to do whatever camp activity is next., Tabitha was a lot of fun to have at camp this week. We hope she'll be back next year.

Connor: Connor chose to leave the well-trod path of building the Boost signature robot or the guitar, choosing instead to build an assembly line and completing it in an impressively fast build. He also built it exceptionally well. Connor was able to get the assembly line to build a mini robot with no errors. This is genuinely the first time we've seen this. It took a little jury-rigging, but the result is nothing short of excellent.

Colton: Colton dedicated his efforts to improving his robot and its code. Each day he has put in consistent work to improve his completely original robot, designed with a distinctive wheel on stick locomotion. Another distinctive feature: the rainbow lights that his robot constantly projects, flashing through every color.

James: James remains a wonderful presence to have at camp. Having completed most of the Lego builds he was interested in, he took an interest in the coding games that we have at camp and he's doing very well. He can navigate them with minimal guidance, and has tackled the harder options that most campers avoid.

Anka: Anka is another hard worker at camp. She really loves to build. Anka built the guitar in only a few days, and then immediately wanted to make the cat next. She is polite and is great at following directions. Anka is the kind of camper that makes camp a great place to be for everyone around her!

Mitchell: Mitchell he was a great camper. He is polite and participates in various activities at camp. He love to take a break from his Boost projects and draw pictures of Godzillas! He tells fascinating stories and was a great addition to camp this week.

Vera: Vera also chose to start fresh, disassembling her cat and making remarkable strides towards building a new guitar. She is in good company, with those also trying to make new robots. Vera wrote some nice letters during camp kindness day, and really continues to shine as an example of human goodness.

Cameron: Cameron, on the other hand, chose to dedicate his efforts towards ensuring that his robot would be best suited for battling and racing, with a way to switch modes between "battler" and "racer".

Harrison: Harrison is having a lot of fun this week. He builds his robots and also likes to make his own creations. He has a fun time interacting with the other campers too. He listens well and is always polite.

# Lego WeDo



It has been a bittersweet week for everyone at robotics camp. On one hand, everyone had such a good time and learned so much about robotics, but on the other hand, it was sad to have to say goodbye to such amazing kids and such an amazing summer. The week began with the new campers building Milo and the returners building a project of their choosing. Ethan, for example, chose to build a dolphin, which is a project he had picked out the week before. Quinton quickly finished his project and was able to start programming right after lunch.

On Tuesday, we had a special guest, Cutie Pie (a plush alligator) who helped Kahlil build a dolphin. Then, after lunch, we went to the science museum where all the kids



had a blast looking at dinosaurs, rocks and the museum's Motion Gallery. After lunch, excited to return to our LEGO projects, we continued to build.

On Wednesday, Amza and Grace both worked on making a bee that rotates around and pollinates a flower. The pool was closed, so after lunch we spent some time creating with Duplos. Following, Beckett finished his car, which moves super fast and Shia made a long train of his own design, complete with several carriages.

Thursday brought another exciting day of building, kicked off by Nathan starting work on his first 'lightbulb' project, designs that don't give complete instructions, instead requiring the builder to work only off of pictures. We also started making projects that brought attention to modern problems like reusable waste. Elijah created a recycling truck to solve these issues.

Overall, this has been such a great week and such a great summer. We are so glad to have gotten to meet these kids!