

Cranbrook Robotics Day Camp Newsletter
6/24/2022



Dear Parents,

It has been an amazing week for your children here at Robotics Camp. They have been using their incredible imaginations to create, explore, and invent everything you will see today upon your visit. Your children are so excited to share with you the projects they have been working on all week.

We hope you will be able to join us at Show and Tell today. Please remember that we have 4 different age groups that *have* programs planned. ALL parents attending are asked to park in the 550 Lone Pine Rd Lot. Signs will be posted, and Camp staff will be outside to guide you to the appropriate area.

*The **Vex IQ** (5th-7th graders) tournament takes place Friday afternoons at 2:15 in the Gordon Science Building. Please plan to arrive by 2:00 so that you may give yourself time to locate your child's camp room.*

*The **Vex Go** (3rd and 4th grades) **Show and Tell** will take place Friday afternoons at 2:30.*

*The **Lego WeDo** (1st graders) and **Lego Boost** (2nd and 3rd graders) have **Show and Tell** on Friday afternoons at 2:30 and 2:45 in their classrooms in the Gordon Science Building.*

For those parents who are not attending the Friday activities, please follow normal pick-up procedures.

Our Vex IQ instructors, Mr. Elmer, Mr. Avaneesh, Mr. Ben, and Ms. Lily have all been looking forward to starting 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.

This season's competition is called "Slapshot". The object of the game is to score points by Removing Discs from Dispensers("Blue", "Purple", "Yellow"), by placing Discs into Goal Zones, and by getting Contact Bonuses at the end of the Match. Campers could build a robot from instructions, called "Slapshot", or create their own design. Robots were programmed using a graphic software called VEXcode IQ, which is based on the Python language.

Cordelia and Vera built a version of "Slapshot" then modified the arms for better scoring. Vera impressed the group with a decorative flower arrangement that she put together during a group walk to the Cranbrook House and Japanese Garden.

Christian and Donald used the base from the instructions but decided to build a modified version. Using wheels, they built an additional subsystem to score more points. Donald was also helpful to the other campers by showing them how to program the LED lights on their robots.

Graham started with a "Slapshot" robot, then built his own design with an intake mechanism to move and shoot discs, a pivoting arm to release discs, and a wheel mechanism for the purple dispenser.

Maryam and Skye followed the instructions very carefully and were able to get their robot functioning quickly. Skye was also very happy to help reset the field after every practice.

Antonio and Jude added a spinning wheel to their robot that would release discs from the purple dispenser. They showed creativity and perseverance while testing out multiple designs.

Dominic finished his robot very quickly and went on to innovate different gadgets with his friends. They came up with a spinning top from only an axle and gears as well as many other unique designs.

Ava and Lauren came up with their own design, which featured a fast spinning intake/outtake, an arm to release goals, and a spinner for the purple goal.

Knox and Sebastian started off by building Snapshot. After finishing it with minimal help, they decided to go above and beyond and completely rebuild their robot, which exemplifies their innovation and creativeness.

Zander, Ethan, and Bryce teamed up to build the Snapshot robot. They showed exemplary perseverance, as they overcame their bot breaking a couple time and built towards a strong finish by the end of the week.

Haru' and Ryoma built a robot with an intake and pivoting arm. While they started with the standard camp bot, they were quick to change the design so it would score more

points. They also added an omni wheel device to their robot to spin the purple dispenser.

Zubin and Zihan came up with their own design with a unique chain drive and a conveyor system. While they had some difficulty with the implementation, they kept reiterating the design process as they worked their way to engineering the most efficient design for this year's game.

Eric built a Snapshot and added a LED. He also impressed others with his skill with the bubble ring.

Xavi and Evalyn started off by following the instructions for the Snapshot robot. After finishing that in record pace, they continued to improvise and design their own version of a robot that succeeded in interacting with all the scoring elements of the game.

On Tuesday, the campers enjoyed a break from robotics, and the heat, at the Natatorium. At the Cranbrook Institute of Science

WE DO

1. Zayn- Zayn is a kind, thoughtful and concentrated camper. He adores displaying his different creations where he specializes in using rubber bands to connect his motors to wheels. Zayn is not shy in asking for help and also aiding his fellow campers with ideas.
2. Zack- Throughout the week Zack has been enthusiastic about his lego WeDo robotics creations such as his helicopter and car, and in addition likes to work with his numerous friends. He always brings so much energy to the room and helps to make camp more enjoyable for all.
3. Keaton- Keaton displays a real efficiency when it comes to robotics, as he quickly finishes his builds. His favorite seems to be a helicopter, which he has played with a lot. He loves to work with numerous other campers, ensuring everyone has a positive experience at camp.

4. Harrison- Harrison is very efficient with his projects, as he has made so many different robots in the span of one week. He is very curious and he is not afraid to ask questions when he needs help or when he wants to understand how certain parts work.
5. Miya - Miya is kind and caring for her fellow campers and counselors. Always ready with a smile on her face and a drive to learn and create, Miya has excelled in creating numerous different Lego WeDo robots over last few days.
6. Erwin- Erwin's friendly personality has allowed him to connect with fellow campers and he has developed great friendships. He enjoys collaborating with them when making and programming robots. He can often be seen programming different robots.
7. Lyla- Lyla consistently brings so much energy to her fellow campers and takes pride in her lego robotics projects such as her robotic frog. Friendly, outgoing, and always up for a good laugh, Lyla helps brighten the day for all she comes in contact with.
8. Jon- Jon initially faced some difficulties with the Lego WeDo, but easily overcame them through focus and determination. After the first day, he felt comfortable with free-building. His positive energy is unmatched and influences the other campers.
9. Kaifan- Kaifan began the week by following instructions and learning how to program, but his curious personality led him to deviate from the instructions. He started to free-build with fellow campers to create a very cool and innovative robot.

10. Ethan- Throughout the week, Ethan has followed the instructions and free-built robots. He loves to collaborate with fellow campers and has ended up with a very unique robot that he adores displaying to other campers. Ethan also loves sharing his extensive wealth of knowledge, and we've all really enjoyed watching his face light up as he talks about almost everything, especially ships.

Boost

1. Jude - Jude has spent this week designing, building and being an incredible role model and friend to the other campers. When faced with a challenge, Jude is able to both be patient and understanding as well as use his critical thinking and problem solving skills to find a resolution. He's so smart, kind and a pleasure to have in camp!
2. Matthias- Matthias is a very creative individual, veering off the instructions to build his own unique creations. As well as being creative, Matthias has a real knack for learning, at the science museum he was very inquisitive, looking and pondering at all the exhibits for extended amounts of time, trying to truly grasp what was being presented to him.
3. Alex - Alex is smart, compassionate, and seems to be a favorite among his peers. From being an active member of outdoor activities to quickly building in the classroom, Alex is always down for an adventure and to learn.
4. Saul- On the first day Saul on his own decided to take a challenging route and begin on a complex robot using lego Boost instructions. Throughout the week he has had to persevere by thinking outside the box to complete his tasks. In addition to his ambitious plans, Saul also recognizes when he needs help.

5. Jesse - It has been a joy to instruct Jesse over the last few days. Easy going and good at sticking to the rules, Jesse has created a large and complex robot. Furthermore, Jesse is helpful and articulate for his age and it is clear the other campers respect and look up to him.
6. August- Throughout the week, August was very focused and stayed on task to finish his robot quickly, following instructions and asking for help if necessary. He instantly grasped the building and programming concepts, which was shown with his robot.
7. Miles- Miles was a pleasure to have in camp this week. He finished his robot efficiently within 1-2 days. His caring personality was displayed as he helped other campers with their robots throughout the week. Over the course of the week he really came out of his shell and enjoyed collaborating with his friends to build some very complex robots, as well as joining in on our games during our breaks.
8. Victor- Victor is always focused on building his robot and has displayed a real knack for robotics. He has proven that he knows what he is doing when it comes to building and programming; he rarely asks for help. He also enjoyed collaborating with fellow campers, displaying skills of teamwork and leadership.
9. Gia- Gia is a natural leader among her fellow campers. Polite, smart, and always down for the challenge, Gia has been a pleasure to have. Gia often volunteers to hold the door and go out of her way to make sure everyone has a positive camp experience, both inside and out of the robotics classroom. She even stepped up to the challenge by offering to share her technology with another camper when we had technical difficulties. Campers exhibited enthusiasm, and were interested in all the museum has to offer. As week one of camp comes to an end, it was a very enjoyable and successful time to explore both engineering and robotics, while most importantly being able to make new friends and fun memories. The campers will finish the week by participating in a Vex IQ Slapshot

tournament, where they can demonstrate their robots in official teamwork challenge rounds and skills runs

Alex - Alex is a very active participant and brings a lot of energy to the group. He was also respectful to his counselors and directors. When Battlebots wasn't going his way, Alex put his robot back together and was determined to go back to face the challenges.

Zade - Zade was a polite and persistent worker at robotics camp this week. No matter how hard the challenge, he was always willing to work through it and improve his robot. He also remained respectful towards the staff.

Lyanna - Lyanna is always laughing. She approaches robotics with cheerful enthusiasm and took joy in her accomplishments. Lyanna was a great addition to our group because she was kind and showed compassion for each project.

Matthew - Matthew was a calm and respectful addition to the robotics camp. He always followed directions and was willing to learn or try new activities. He didn't rush to the final result - he enjoyed and learned from the process of building.

Leo - Leo was a very diligent student throughout the week and, despite all the activities and challenges faced throughout the week, he remained focused on improving upon his robot and always remained respectful towards his fellow classmates and instructors.

Max - Max has been a pleasure to have as he has remained very respectful towards his peers and counselors throughout the week. He has done a great job keeping focused on his work and listening to the instructors resulting in some very well-made robots.

William - William was very eager to work on his robot all throughout the week and showed it with his colorful personality. He also showed to be very friendly and has no issues working with other campers and didn't shy away from asking the counselors to tackle any obstacle he was facing.

Henry Hubbard - Henry set an example for his peers at robotics camp this week. He was obedient, focused, and nice to both campers and counselors. While counselors were helping him, he was helping the counselors by actively making suggestions and working with us to make his robot better, which resulted in an impressively sturdy battle-bot.

Avni - Avni is an adventurous addition to this robotics camp. She is willing to diverge from the instructions to create bigger and better projects. Her ambitions take her to the limits of the Vex-Go pieces.

Calvin - Calvin has grown in this week of robotics. He is a natural leader for his peers which showed in Thursday's visit to the Cranbrook Institute of Science. He helped lead the group through the museum trying to see and show as many exhibits as possible.

Mark - Mark is a lively and artistic robotics participant and builder. He sees robotics not only for function, but also for decoration, often taking colorful pieces to make a powerful looking battle-bot competitor

Shia - Shia has been a great addition to the camp and easily picked up on building his robot despite being absent on Monday. He is very respectful of the counselors and does not shy away from making friends with the other campers while also finding time to work on his robot. He also sets a great example for the other campers by keeping his table very tidy.

Nolan - Nolan was a great friend at camp. He was kind to his fellow campers, often offering suggestions or help in building their robots. Nolan was very polite with the counselors and was constantly making new friends.

Peilan - Peilan shows off her enthusiasm and love for robotics by building robots very quickly and never getting discouraged when certain parts don't work. She has a great drive to finish building whatever she sets her mind to and doesn't disappoint with her massive creations that amaze the rest of the campers.

Luka - Luka was a happy camper this week. He enjoyed building and battling robots and was always having fun, whether it was lab time or break time. Although the kids made friendly competition out of robot battling, Luka was always kind and respectfully followed the rules.

Henry Vautaw - Henry was exceptional in multiple ways this week at camp. He was extremely well-behaved and polite, and stayed on task to create a well-built robot. He had a lot of fun playing with the other kids but never got carried away; he had exemplary behavior for the other campers to follow.

Liam - Liam stood out this week as being very energetic, and it translates well into his work on his robots. He is always very excited to get to work and improve his robots so he can battle against the other campers, all while being very respectful towards them and staying out of trouble.

Jonas - Jonas is a hardworking and friendly addition to the robotics group. He studiously works on his robot at lab time and kindly interacts with the campers at break. On our recent visit to the Cranbrook Institute of Science, he remained well behaved and cooperative.

For Parents interested in Purchasing Kits used in Robotics Camps this Week:

Lego Education WeDo 2.0

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

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Lego Boost Creative Toolbox

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

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Vex IQ Super Kit

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

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