

July 26, 2024



Happy Friday Parents, Families and Friends

It's been a whirlwind of a week and once again, your camper has impressed us all. Your children showed great initiative and skill while working on their robots. They have worked in teams and individually, with patience, thoughtfulness, and productivity.

In the past week, camp has provided an environment for your kids to refine their dexterity, learn the basics of coding, and use their brilliant minds to resolve complex issues. In between all the building, they went for a swim at the Natatorium, and explored the Cranbrook Institute of Science.

*We have enjoyed our summer with your children, and hope they will always remember the enriching experience they had, here at Cranbrook Robotics Camp!!
Enjoy the rest of your summer!*

WeDo/Boost "24



Aria Nushaj: This was Aria's third week at robotics camp, and we loved having her back! Each week Aria becomes a better and faster builder than the week before. She decided to build a guitar this week. She enjoyed spending her time playing with Ester and Charlie at snack and lunch. Aria is a happy camper and listens very well. Aria also enjoyed exploring the CIS with Ester and Charlie as well.

Charlie Gega: Each day Charlie comes to camp with a big smile on his face which we love to see. Charlie is a very fast builder in our WeDo group, and we are excited to see him next year in Boost. Charlie, as always is very eager to help his friends, especially Aria and Ester in finding their pieces and with building. His favorite instructor is Miss Michelle. We are very sad to see him leave next week. Miss Michelle is part of the upper school madrigals and hopes to see Charlie on her visits to Brookside.

Denver Carter: This was Denver's first week at robotics camp and he proved to be an excellent pro builder. Needing very little help Denver was able to finish his lift very quickly. Denver is a fun camper to be around. He made friends with everyone easily this week as everyone asked him for help, and he was more than willing to assist his friends. We hope to see Denver back next year in VexGo, as we think he is more than ready for the next step at robotics.

Ester Nushaj: Ester has come back to robotics camp and rocked this week. Ester is a very fast builder which allows her to complete so much in just one week. Due to her fast-building ability she's able to include a lot of add-ons, and also let her friends like Charlie play with her robot. Ester is a bright light that gets laughs and smiles from the campers and instructors. She has spoken about her swim lessons, which is clearly shown in her abilities during Wednesday swim time.

Graham deSteiger: We loved having Graham back this week at robotics camp. Graham is part of our WeDo group where he easily made so many new friends this week. He became good friends with Sammy this week in which they enjoyed exploring and watching the Planetarium show at the Science Museum together. Graham is a wonderful camper to have and we hope to see him in the Boost group next year!

Grayson Bral: It was lovely having Grayson at camp this week. Earlier this week he decided to switch his project, however he was able to instantly catch up and jump back. Grayson got along well with Ollie and Sam this week as he said he knew them from school. He is an excellent independent worker, able to build quickly on his own. Grayson is a funny kid making everyone laugh. We did not know that Grayson and Carter were siblings so we loved seeing him again during pickup too! We hope to see him next year!

Jesse Cohen: This was Jesse's first week at robotics camp and he totally rocked it. Jesse was part of our WeDo group and enjoyed building his robot. Although he was not here for the entire week, we are very proud of what Jesse accomplished in the short time he attended. He is a very good listener, always following directions the first time around. We hope to see more of Jesse soon, and hope he will return next year where he will be part of our Boost group in robotics.

Kate Shenkan and Sydney Berkman: Kate and Sydney were practically inseparable this week. They are truly best friends. They both decided to build the guitar. The two enjoyed spending their time together at the planetarium, during lunch, and snack breaks. Kate and Sydney also enjoyed spending time together out of camp too! They are the ultimate duo helping each other as they went through each step this week. One did not go anywhere without the other. Kate and Sydney both told us that they go to Brookside. As most of us attend the upper-school we hope to see them both this school year if we or they visit the upper school campus, or Brookside.

Leo Vaughn: This was Leo's first week at robotics camp and he did terrific. Leo was part of our WeDo group and he loved building with his friends. Although on the quieter side, Leo was a perfect camper to have as he was helpful, efficient, and friendly towards other campers. We loved having Leo at camp this week and really hope to have him here next year too. Leo is a bright light, and we will miss him very much.

Luca Liggett: This was Luca's 5th week here and we are SO SAD to see him leave. We loved spending our entire summer camp time with Luca and really hope to see him next year at camp. Luca has accomplished so much this session; each week getting better and better at building. Luca is a rockstar with legos now and we are super proud of him. We loved seeing Liam at pickup and hope to see him at robotics camp as soon as he is old enough. We hope to see you next summer Luca!

Lucy Retallack: This was Lucy's third week at robotics camp and we loved having her back. Lucy is a super helpful camper to have around. She became good friends with Natalia as the two decided to spend lunch and swim together on Wednesday pool time. Lucy is a fun camper, always making us laugh. We enjoyed hearing about her trip to Chicago and told us how much fun she had. We hope to see Lucy next summer!

Mia Drozd Ormancey: Mia is such a sweetheart and we enjoyed having her at camp this week. Mia is super helpful and a great builder. Mia is very soft spoken which makes her so approachable to all campers and kids. She loved spending time outside with just about everybody and she got along with campers and counselors so well. Mia was part of our WeDo group this year however we are very excited to see her move up to the Boost group.

Natalia Gase: This was Natalia's first week at robotics camp and we loved working with her. She decided to build a cat this week and did great. She got along very nicely with Lucy this week and they were best friends in all of our activities. The two helped each other get through their cat projects and were super good builders. We hope to see Natalia next summer in the Vex Go program!

Noah Rothfeder: Noah worked very hard all week to build his car robot. Noah was an excellent camper and we enjoyed having him here. He loved visiting the science museum and watching the sky show at the planetarium. Noah had so much fun jumping off the diving board at the natatorium swimming pool. He was a brave swimmer passing the swim test, and jumping off the high board many times. We hope to see Noah back at camp next year.

Oscar Sunder: We look forward to seeing Oscar at robotics camp every day. He is a lively kid with a big heart and soul and we love having him at camp. We will miss Oscar so much and hope to see him in VexGo next year. Oscar gets along with everyone so well and is never afraid to speak his mind. He enjoyed building a lift this week and visiting Ms. Wendy in the office to draw and independently play with legos. Some of our counselors attend the upper school and hope to see Oscar this school year. Miss Isabella also babysits Oscar's friends and hopes to see him again soon as she adores him.

Sam Hirsch: We enjoyed having Sam at camp on Monday, and even though he couldn't stay the full week, we hope he enjoyed his time with us. We hope to see Sam at robotics camp next summer.

Samuel Cischke: Sammy was a lovely camper to have at camp as he made all of us laugh! Sammy is a great builder, and an energetic kid to have at camp. He is friendly, playful and kids gravitate towards him because of it. He enjoyed playing with friends in the WeDo group and building several projects. Sammy is independent and fierce; never afraid to stand up for himself or speak his mind. We enjoyed seeing Sammy this summer and hope he comes back next year!

Tae Park: Tae was an excellent builder able to finish his guitar very quickly. Tae enjoyed coding and playing his guitar as well. Tae is a wonderful kid to have at robotics as he is helpful and a ball of joy. He is friendly to all of his friends who need help building too. We are excited to see what Tae can do next year in VexGo!

Ollie: This was Ollie's third week at camp and we are so sad to see him and his dog go. Each week Ollie becomes a stronger and more efficient builder in his projects. This week he decided to build something from the portal and spend a lot more time on coding. He was the first camper this summer to build this project in particular so it was cool for the counselors to see it brought to life. Ollie enjoyed spending time with Sam and Grayson as they got along very well. We hope to see Ollie next year and cannot wait to see what he can do!

Vex-Go '24



Alex – Alex had a lot of fun at his second week of robotics camp! He enjoyed building the spirograph and watching his project create geometric circles. He had fun at every recess and liked playing with the other kids a lot. He was very social and always liked to collaborate with others in sharing his creations. We loved having Alex again at camp!

Alexander – Alexander really enjoyed playing with the other kids at camp this week! He was always communicating with his peers and shared his ideas with others. He was so proud to challenge himself in the tower project and creating a tall and sturdy building. Alexander was always kind towards others, and brought fun stories to lunch and recess. Every day we were all so excited to see him at camp!

Ashwin – Ashwin loved socializing and building with others at camp this week. He was very respectful to others and liked talking to his tablemates. He persevered through any engineering problems he faced and always stayed positive. He really enjoyed going to the science museum and seeing the planetarium show!

August – Auggie enjoyed another week at robotics camp. He explored different projects including the clock and pictograph builds. He liked to free-build and add new extensions to his projects (he built a sturdy skyscraper taller than himself!) He liked talking to the instructors during lunch and recess, and was kind; conversing with everyone at camp.

Ayden – Ayden is such a kind camper, and it was great to have him back again. He always showed respect to the instructors and counselors, and really liked sharing cool facts about gem stones at the Cranbrook Institute of Science. He found the planetarium show fascinating and liked talking with Alex. We loved having him for another fun week!

Brigid – Brigid was a very hard worker at camp this week. She was very kind to others and liked talking to all the campers and instructors. She enjoyed watching the planetarium show at the science museum and seeing all the cool gems. She loved collaborating with her tablemates to think of other ideas, and was a great camper.

Caroline – Caroline loved another week at robotics camp. She worked carefully to troubleshoot any engineering problem she faced, and liked talking to the other campers during lunch and recess. She was very respectful and always listened to directions. She liked sharing the books she was reading at pickup and dropoff and enjoyed the various challenges with the City theme this week.

Carter – Carter had a lot of fun at another week at robotics camp! He was a very good listener and liked working with his tablemates on his projects. He really enjoyed going to the science museum and watching the night show. He always thought outside the box for his creations and was open to talking to others about new ideas too.

Charles M – Charlie was a great camper this week who liked working with Lawrence on his projects. He always cleaned up his station after build time and followed directions so well. He liked playing with the other kids at recess and lunch and made a lot of new friends. He worked hard during build time and persevered through any problems he faced. We all loved having him this week!

Charles U – Charlie worked hard the whole week to create various projects. He worked with Ashwin to troubleshoot any problems and always asked for directions respectfully. He was very proud of his creations and always wanted to share his ideas with others. He listened to directions well and liked to play with all the other campers at lunch. He had a great time and we loved seeing him again this summer!

Jay – Jay was a very kind camper the whole week! He worked hard on his projects and liked to collaborate with Alex. He always asked for directions nicely and always followed the rules. He worked carefully during build time to finish his projects, and liked to create add-ons onto his robot to make it more unique. He enjoyed recess and lunch time with the other campers!

Juncheng – Juncheng was such a nice camper to have here!. He worked so hard during build time and always asked for directions kindly. He liked working with his tablemates on new ideas and add-ons he could add to his robots to make them perform better. He liked playing with the other campers at recess and talking to Ashwin and Rana during build time.

Kaspor- Kaspor is quite an independent and dedicated worker when it comes to building his robots. He always listens to the instructors and finishes his robots very quickly. He is very friendly and enjoys building with other campers. Kaspor worked hard during build time and was always one of the campers who finished first.

Lawrence – Lawrence was a great camper who worked hard all week. He liked working with Alex and Ayden on their projects to share ideas. He really enjoyed recess and lunch time to play outside with the other campers. He was very proud of his projects and was always vocalizing any new ideas he thought of. He led a good example for the younger campers by listening to directions well.

Liam – Liam was a hard worker this whole week and always persevered through any problems. He was a good tablepartner to Sam and liked to explore his imagination by adding unique details to his projects. Whenever he needed an extra piece, he showed patience and respect to his instructors. We all really enjoyed having Liam at camp this week!

Meredith – Meredith was a great engineer this week at camp! She explored all aspects of the design process and challenged herself to create various builds. She was respectful to the other campers and always joined in on conversations at lunch and recess. She liked the planetarium show at the science museum and always looked forward to building time. She was a great camper!

Omar – Omar had a fun time at another week of robotics camp! He was always respectful and listened to directions well. He challenged himself in his projects to try new things he hadn't tried before. He liked listening in on the conversations at lunch and recess and liked participating in all the activities we did this week. We really liked having Omar for another week!

Rana – Rana was an excellent camper this week! He worked very hard to complete all his projects and worked to find solutions to any of his problems. He was respectful to all the campers and instructors and carefully cleaned up his workstation every day. He explored various types of projects and enjoyed everything he learned from each one. Everyone loved having Rana at camp!

Ravi – Ravi is friendly and a very hard worker when it comes to building his robots. He listens to all the instructors and never hesitates to ask questions. Ravi enjoyed building the robots this week and was kind towards the campers. He always listened to others when they spoke. We loved having Ravi here at camp!

Samanyu – Samanyu always went above and beyond with his robots. He enjoyed playing with the other campers during recess and listened to directions very well. He worked hard with Liam to share any ideas he came up with and liked going to the planetarium. He liked playing with Ashwin at recess and lunch and was always a happy presence.

Zachary – Zach had a fun time at another week of camp! He worked very hard in finishing all his projects and learning new things every time. Whenever he asked for directions, he always showed respect and patience. He always joined in on conversations and was a great listener for the other campers and instructors. We loved seeing Zach again and were all happy to see how much fun he had.

Vex-IQ '24



Our Vex IQ instructors Mr. Bobby, Ms. Grace, and Mr. Vik have all been looking forward to starting a great week of camp! All of the campers made this week exceptional, with everyone learning how to construct and program their robots for the VEX IQ competition. While a few students came in with prior experience with VEX IQ, most were newly introduced, and each individual rapidly grew their understanding. This season's competition is called "Rapid Relay". The object of the game is to score points by clearing switches, passing balls and scoring balls. Campers could build a robot from instructions, called "Swish," or create their own design. Robots were programmed using a graphic software called VEXcode IQ, which is based on the Python programming language.

Augustus and Keegan built a Swish robot, demonstrating their abilities to assemble things quickly and accurately. They added a linkage to the launcher for more speed. They also added special code that makes it do a victory dance, adding some fun to their competition matches.

Griffin joined Harley to improve on his existing robot. To enhance their robot, they changed their launcher to a linkage system to shoot the ball more accurately. They also practiced passing for the competition.

Haneen, Lindsay, and Mariam worked together on a version of the Swish bot. They divided up the work so they could work on different sections simultaneously. They added colorful touch LED's to their robot and programmed it to play music.

Maryam and Benji worked together to build a robot with a set of intakes and a ramp. While building the robot, they paid close attention to the details to ensure that it worked smoothly. They also created an autonomous program for their robot and successfully made their robot score goals without someone driving it.

Henry joined Avery, starting with Avery's robot from last week. They added several enhancements, such as building a faster intake that uses two motors instead of one. To prepare for the competition, they scrimmaged with other teams.

Hadi and Lukas worked together and carefully constructed a Swish robot. They improved the design by replacing the winch system with a linkage that is faster. They also added guides that help line the robot up with the goals.

Jack D. disassembled his robot from previous weeks to create a unique design. His new robot uses a curved track to intake the ball and score it in the lower goal. He also worked on making his new robot faster with gear ratios.

Cameron joined Jack F. to improve on his robot from last week. They made several enhancements, including a faster gear ratio for the base and a faster intake. After they completed these enhancements, Cameron and Jack also added alignment guides to intake the ball more accurately and tested their improved robot on the field.

Brendan and Parker got together and decided to build a robot with three intakes that conveys balls off the ground into the low goal. They spent time creating an autonomous program to do well in Skills. During their building and programming process, they displayed great enthusiasm and excitement.

Yane and Veda teamed up to build a robot with a set of intakes that scores balls in the low goals. They always had a positive attitude and worked well together to build the robot. Afterward, they practiced Skills driving matches together and scrimmaged with other teams.

Nicholas had his robot from last week and also worked on a unique robot that uses treads. He experimented with a four-motor gearbox to move his robot faster and spent a lot of time practicing driving.

Adelaide and Abby teamed up again in hopes of replicating their first place Skills performance. In addition to refining their driving skills with many practice matches, they made improvements to their autonomous program and shared tips to help other teams.

At the Cranbrook Institute of Science on Tuesday, campers exhibited enthusiasm, and were interested in all the museum has to offer. On Wednesday, the campers enjoyed a break from robotics and the heat at the Natatorium.

As week six of camp comes to an end, the campers had a very enjoyable and successful time exploring both engineering and robotics, while most importantly being able to make new friends and fun memories. They will finish the week by participating in a VEX IQ Rapid Relay tournament, where they can demonstrate their robots in official Teamwork Challenge rounds and Skills runs.

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Here's some last-minute fun for our 2024 Campers! See how many Robotic terms they can find in the

Word Search Puzzle



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|------------|------------|----------|----------|
| drivetrain | controller | standoff | sprocket |
| angular | coding | sensor | joints |
| pulley | vexgo | Nadia | wheel |
| brake | robot | plate | shaft |
| joint | brick | beam | gear |
| pins | | | |