Skills Canada BC-Jr Robotics (Virtual Coding) Regional Challenge 2022

This is an 'In-Person' Competition

Elementary Grades: 4-5 and 6-7

Secondary Grades: 8-9

Number of Students/Team: Team of 1 to 3 students

NO previous coding experience or physical robot is necessary to participate!

Top Regional Winners in each division Grades 4-5, 6-7, and 7-8 will receive Gold, Silver and Bronze medals.

This competition will utilize an internet-based software VEXcode VR. VEXcode VR is a web-based platform that is accessible through a computer, tablet, or Chromebook.

An example of a competition challenge tutorial problem – Corel Reef Cleanup

https://hoc.vexrobotics.com/coral-reef-cleanup/

Contest Information, Rules & Regulations

Students must:

Be in grades 4-5, 6-7, or 8-9 as a B.C. School District student (Public, Private, or Independent).

Home School students should contact the technical chair for clarifications: byu@vsb.bc.ca

Teams can consist of 1 – 3 competitors registered through the Skills Canada British Columbia Teacher Login link, https://skillscanada.bc.ca/competition-registration-login/. Teachers who wish to register students must have a teacher username and password. If you do not have a username please contact Jamie Maxwell at jmaxwell@skillscanada.bc.ca.

All team members must attend the same face to face school (grades 4-5, 6-7, 8-9).

If there is a member of the team in a higher grade, the team will now compete in the higher division.

Scope of Challenges:

Students will Demonstrate the ability to:

- Work as part of a team
- Think Critically
- Solve Problems

Students will complete three (3) VEX Code VR tutorial activities for the competition. The exact tutorial and specific requirements will be announced at the beginning of the competition week via email and here at this website.

The Competition

The students will have 1 week to complete the competition.

Each team will compete in 3 online VEX Code VR tutorial challenges.

The results will be submitted by the competition site supervisor.

For the Regional Challenge, each competition region within B.C. will have the results from their students compiled and tallied.

Awards will be handed out based on regional winners. Regional Winners will be invited to participate in the Provincial Championship.

Timeline for 2022

Jan.01.22	Competition Scope Document to Skills Canada BC
Jan.01.22 to Feb.19.22	Practice period before the competition
Feb.19.22	Release of the competition challenge (online: vexiqbc.com)
Feb.20.22 to Feb.26.22	Regional Competition Week
Feb.27.22 to Mar.01.22	Results Finalized
Mar.01.22 to Mar.05.22	Release of the Result
Mar.06.22 to Mar.12.22	Award Week

Before the Competition

Student Should:

(I) Register with a competition site supervisor.

(II) Connect with your site supervisor to determine the 'in-person' competition date/time/location.

(III) Get online and view the VEX Code VR code tutorials in YouTube.

      https://www.youtube.com/results?search_query=vex+code+vr+

(IV) Begin the practice tutorials and challenges.

(V) For Competitive students:

- Go through each of the challenges listed with the different 'play field'.
- Go through each of the challenges again but try to use less blocks and lines of code.
- Go through each of the challenges again but speed up the performance of the robot.

The Competition Week

Students are to arrive and leave the competition site with: No paper, No technology devices (cell phones, tablets, laptops, etc.).

Everyone must adhere to the competition site COVID safety protocols.

Be respectful of all staff and students present.

Parents/non-competition related individuals are not allowed in the competition area (ie: computer lab).

Arrive to the event ahead of scheduled time.

Check In with the site supervisor.

Make sure your teammates have arrived as well before starting the competition.

Please make sure to ask the site supervisor to check off each competition tutorial as you finish. It is important to demonstrate the end of the competition clock on the virtual simulation. The clock can be stopped by adding a 'Stop Project' block at the end of your main stack of the program.

The amount of time used by the virtual robot to perform the required tutorial task is to be recorded by the site supervisor in writing. Please make sure you have seen your results being recorded before saving your file to the computer.

Lastly, make sure you have saved your file before starting a new competition tutorial.

After the Competition

Wait for the results to be tallied.

Results will be posted online at vexiqbc.com.com (here), one week after the end of the competition week.

Ranking information posted will be limited to score value only. This is done to protect the identity of the students.

Competition Scoring

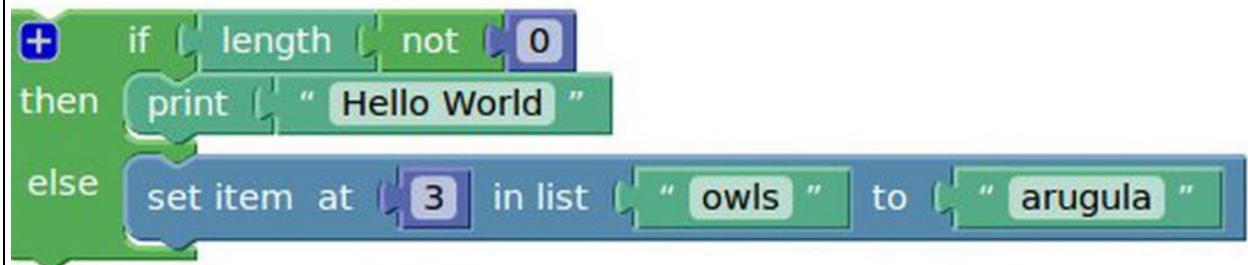Ranking will be done by the following step-down method:

(I) 'The fastest' to perform the required task (correctly).

3 minutes 24 seconds will be converted to: (3 x 60) + 24 = 204 seconds.

	Activity 1	Activity 2	Activity 3	Total	Rank
Student 1	300 sec.	250 sec.	150 sec.	700 Sec.	First
Student 2	400 sec.	300 sec.	200 sec.	900 sec.	Second
Student 3	500 sec.	400 sec.	250 sec.	1150 sec.	Third

If a 'tiebreaker' is required, the following steps will be used to break the 'tie'.
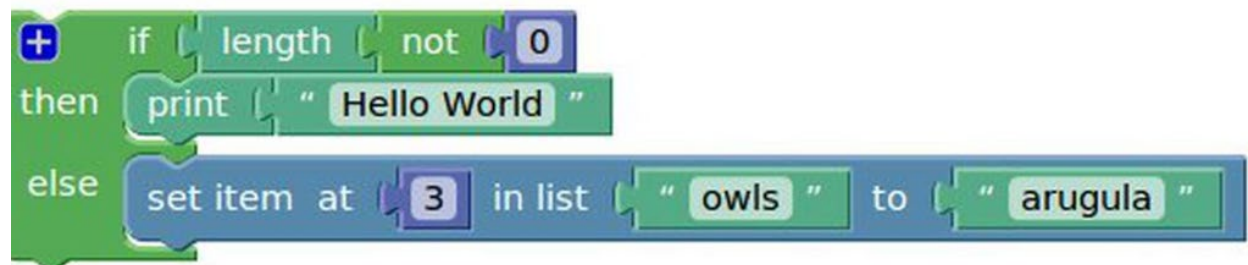
(II) The total number of lines used.

This Stack has 3 lines.

If a 'tiebreaker' is required, the following steps will be used to break the 'tie'.

(III) The total number of blocks used.

This Stack has 10 blocks

Please note: (1) any 'Comment Block' used will not be counted. Please feel free to comment your code for clarification. (2) the code stack listed here is for example purposes and are not VEXCode, but rather Google Blockly.

For Students

(I) View the available demo videos from YouTube.
(II) Try the practice problem – Corel Reef Cleanup - https://hoc.vexrobotics.com/coral-reef-cleanup/
(III) Find a partner or join a group (No more than 3 students). Must be from the same school.
(IV) Make sure to have internet access at home to do the practice tutorials.
(V) Be available during the competition week.
(VI) Be able to attend the 'In-Person' event at your designated site.

Safety

This is an 'In-Person' team contest. Please ensure you maintain your school's/event site's health and safety policies as well as COVID-19 protocols. Ensure that you wear your mask, sanitize your shared equipment and maintain socially distant when you are face to face in a classroom/small room setting. Please note, there are no assigned roles or tasks. Students can work on separate tasks and one student can combine the project together at the end. We encourage teamwork wherever possible but recognize due to current restrictions, collaboration may be more difficult.

Helpful Tips

Time differences: Please note that since VEX VR is a web-based platform, you may experience a lag in your time to complete the mission. Some suggestions are below to allow for the fastest time possible:

- Close ALL unused tabs
- If possible, connect to a hard-wired connection
- Test multiple times and submit your best time

Parental Support

(I) Provide your child with:

- Internet access
- A computer (desktop/laptop/tablet)

(II) Make contact with your local competition site supervisor.
(III) Be advised of your local competition site's COVID regulations.
(IV) Be familiar with the information in this website, as well as to follow the Code of Conduct as stated.
(V) Make sure your child arrives at the competition site on time.

School Sponsor/Site Supervisor Responsibilities and Code of Conduct

Please note: this competition is a school sponsored/related competition. All students participating must attend a qualified B.C. School. This can include public, private, independent, and religious denomination schools. Home schoolers must be attached to a supervising school district or school related organization to qualify.

Each student participant must have an adult school representative to act as a sponsor/supervisor. This individual must be willing to act 'on behalf' of the school administration and school district office. A school sponsor/supervisor may supervise more than one student within the same organization.

The role and responsibilities of the school sponsor/supervisor:

- Register the student into the competition and submit the information to the technical chair.
- Locate/Provide a location for the competition.
- Submit competition results via email to the technical chair at the end of the competition week.
- Pay for the registration using a credit card. (Provincial Competition – when qualified)
- Actively supervise the student before and during the competition.
- The sponsor/supervisor must also act as a 'communication person' between the students/families and the Skills Canada BC competition administration.
- Ensure that all rules and competition regulations are followed.
- Ensure that the student and their family follow all Code of Conduct stated by this document and those stated by Skills Canada and Skills Canada BC.
- Certified the student/team's performance as independent and without help during the competition.
- Ensure the student/team follows all district honesty/cheating policies.
- Ensure the student/team follows all district/site COVID and safety protocols.
- School Sponsor/Site Supervisor should have a proficient knowledge in using MS-Word, Excel, and be able to send email with attachment.

Information and updates will be sent from the competition administration via emails and web postings to the school sponsor/supervisor. All questions and concerns from the participating student and their family must go through the school sponsor/supervisor to the competition administration via email. The competition administration will not accept and/or reply to messages directly from the students and their families.

Please refer to the Code of Conduct page for specific details.

Code of Conduct

Skills Canada Competition and Skills Canada BC Competition considers the positive, respectful, and ethical conduct of all students, teachers, mentors, parents, and other event attendees an important and essential component of all Skills Canada British Columbia related events.

Repeated or egregious violations of the expectations in this Code may result in consequences up to the disqualification of the student, the team, or the organization from the current event and/or future events, and potentially removal from the Skills program after review by the competition administration.

Please note: in-appropriate behaviors or demeanor from a school sponsor/supervisor will also result in disciplinary consequences as stated above.

A majority portions of the above guidelines are adapted from:

REC Foundation Code of Conduct:

https://www.roboticseducation.org/documents/2019/08/recf-code-of-conduct.pdf/

A positive example from FIRST Robotics

Gracious Professionalism®

Dr. Woodie Flowers, (1943 – 2019) EAB Chair Emeritus & Distinguished Advisor, coined the term "Gracious Professionalism®."

Gracious Professionalism is part of the ethos of FIRST. It's a way of doing things that encourages high quality work, emphasizes the value of others, and respects individuals and the community.

With Gracious Professionalism, fierce competition and mutual gain are not separate notions. Gracious professionals learn and compete like crazy but treat one another with respect and kindness in the process. They avoid treating anyone like losers. No chest thumping tough talk, but no sticky-sweet platitudes either. Knowledge, competition, and empathy are comfortably blended.

In the long run, Gracious Professionalism is part of pursuing a meaningful life. One can add to society and enjoy the satisfaction of knowing one has acted with integrity and sensitivity.

The above guideline is adapted from: FIRST Robotics Vision and Mission: Vision and Mission | FIRST (firstinspires.org)

A message to all school sponsor/supervisor

If you feel the above conditions are above your expectations and your ability to enforce these conditions with your student(s) and their families, please refrain from accepting this position and ask someone else from your organization to take up the responsibilities. If a school sponsor/supervisor is not willing to step forward, the student(s) from your organization will not be participating.

The competition administration consists of the competition Technical Chair, competition event staff, Skills Canada BC competition manager, and senior members of the Skills Canada BC executive management team.

Acknowledgement

The Technical Chair for this competition would like to Thank iDesign Solution for their support and contribution to this competition challenge.

iDESIGN Solutions
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"Technology Sales & Services to Advance 21st Century Skills"
Shop online at our secure store www.idesignsol.com for all your VEX Robotics Kits & Parts

Technical Chair

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