

FIRST CANADA & LOGICS ACADEMY ENGAGE YOUTH USING VIRTUAL SIMULATOR

FIRST Robotics Canada, in partnership with Logics Academy, helps educate students and teachers about FTC (FIRST Tech Challenge) SIM, a game-based learning simulator.



THE CHALLENGE

FIRST Robotics Canada was looking for ways to enhance their FTC (FIRST Tech Challenge) simulator learning experience for students and teachers in grades 4-9 across Canada thanks to the CanCode initiative. To ensure the best possible learning experience, the simulator required new user-friendly lessons to be developed, including self-directed activities, culminating in a final challenge. Teachers and students who use the FTC SIM virtual environment are encouraged to further participate in the FTC competition. FIRST was also looking for more avenues to equip Canadian youth with the skills they need to be prepared for the jobs of the future.

THE SOLUTION

In partnership with the FIRST Robotics Canada, Logics Academy developed a refreshed user-friendly learning experience for FTC SIM, a free, online virtual environment in which students, teachers and teams can learn and apply programming skills to pre-designed virtual FTC robots. Lessons in both English and French were designed and created to match the new learning pathways and were aligned to all Canadian provincial standards in subject areas such as Math, Technology and more. These resources included detailed lesson plans with descriptions, images, and sample answers to easily allow teachers to learn how to use FTC SIM in the classroom. In addition, Logics offered ongoing digital literacy training sessions for educators and co-taught lessons for students to advance their skills in STEM.

THE RESULTS

Logics delivered student co-teaching and educator training sessions starting in April 2022 and concluding in March 2024. During this 2-year window, more than 2,300 teachers and over 57,000 students were engaged in various virtual and in-person workshops all around STEM and coding education. In addition, the successful implementation of the new FTC SIM user journey launched in September 2023 and can be accessed for free at <https://ftcsim.org/educators/>. The newly developed teacher-friendly lesson plans were launched to provide step-by-step instruction including three learning streams. The learning resources can be accessed for free at <https://learn.logicsacademy.com/p/ftc-sim-curriculum-bundle/>.



"The fact that FTC SIM could be used right away with students to teach robotics without the need for all the hardware at first is great!"

Teacher

TDSB, Ontario

"The FTCSIM has been a great tool for FIRST Robotics Canada to reach kids across the country with coding opportunities tied to the FIRST Tech Challenge Program. Elevating that experience with these new resources from Logics Academy has added to the value that this resource represents for educators, and we are looking forward to hearing how it is implemented in classrooms across Canada!"

Dave Ellis

President, FIRST Robotics Canada

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