

Nominee Name: Joshua Szkiba
Nominee Year of Graduation: 2023
Nominee GPA: 90% on a scale of 100%.
How many years have they participated in first: 5
Event: ONT Championship

How long has the student been in first?

Josh has been involved in FIRST programs since 2017 for a total of 5 seasons between FLL and FRC teams

- 1. Explain how the student embodies the philosophies of *Gracious Professionalism* and *Coopertition* through the *FIRST* Core Values: Discovery, Innovation, Impact, Inclusion, Teamwork and Fun. Please provide examples.**

If you look at any aspect of our team, Josh's impact is sure to be present.

- 2. How has the student increased the awareness of *FIRST*? Describe the student's interest and/or plans to continue to engage with *FIRST* beyond high school. Please provide examples.**

Since the age of 10, even before joining his first FLL team, Joshua has been advocating for FIRST programs in his local community. After learning about FIRST, he has taught coding and information sessions about FLL to his peers in order to increase his communities FLL teams and engagement. On FRC Team 1241, Josh led his peers to create a 6 workshop curriculum with individual focus on introductory technical skills of different components of FRC teams. He also included a guest speaker session including mentors, FIRST Canada executives and senior FRC students. Josh partnered with the City of Mississauga Library Network to execute these workshops to students aged 13-19 so they could get involved with FIRST programs in their areas by showing all the different avenues FIRST offers. Josh plans on mentoring FRC Team 1241 after graduation and local FLL teams.

- 3. Describe the student's technical expertise, using specific examples in the areas of programming, electronics, design, fabrication, making, illustrating how these skills have contributed to the team's success. Please provide examples.**

Josh's relationship with programming goes as far back as he can remember. From learning fundamentals such as graphical programming through Scratch and text based programming through Python, Josh has made it his goal to create a strong foundation in all new skills he learns. To build on this, he learned raspberry pi and making simple circuits using Arduinos. During COVID, Josh completed several personal projects such as vision tracking, using robotics operating systems to create his own self-driving car simulator and implementing his own code on remote control cars. Josh used these projects as tools to teach younger and novice FRC students

about fundamental programming skills prior to the build season. He has sought out any and every opportunity to improve his programming skills by learning through his mistakes. Josh has been a lead programmer on his FLL team for 2 years, World Robotics Olympics team for 3 years and FRC Team 1241 this season.

4. How does the student's individual contributions to the team benefit the team as a whole in the areas of fundraising, outreach, entrepreneurship, and creativity? Please provide examples.

During the COVID-19 pandemic, Josh was a driving force behind our team's transition to a virtual FRC program. As a lead of our New to Country program for the past 2 years, Josh conceived and facilitated 35 workshops for 60 newly immigrated students aged 5-12 across the Greater Toronto Area. To support his beliefs that STEM is a place for everyone, Josh was the Sponsorship and Awards Director and Challenge Development Lead for our Girls in STEM Olympics event in 2021. He used his technical skills to curate a programming challenge for participants while his passion for this cause helped the team secure \$6,500 in event sponsorships.

5. Explain the student's leadership to their fellow team members. How do they motivate others? What is their leadership style? Please provide examples.

Perhaps the most effective way Josh motivates others is by simply being a team player. In order to lead his peers towards positive growth, Josh focuses on being a resourceful problem-solver, especially in times of uncertainty. He ensures everyone is aware of their individual skills they bring to the table and draws on that to craft solutions or innovative approaches to obstacles. To expose opportunities for collaboration, he both shares his own resources and has created an environment for his teammates to do the same virtually and in person. Josh has built community within his teammates by holding open workshops, learning new skills alongside peers, facilitating open debrief sessions after events, and running virtual game nights. Josh's blaring passion for robotics has motivated his mentors to adapt teaching methods, and increase involvement.