

Dean's List 2019 – Julia Bui

Never before has Team 1241 witnessed a student as diverse and resilient as Julia Bui. She involved herself with media, design, mechanical, controls, drive team, and outreach, rounding off with a friendly personality that makes her teammates and mentors gravitate towards her. She took the path less traveled, defying gender stereotypes and leading the way for her peers in the FIRST community to follow.

Julia's journey in FIRST Robotics started 2 years ago, transforming from a shy rookie to one of our most influential Grade 11 students. This transformation comes from her strong work ethic as she is one of the hardest working students on our team. Transitioning from our all-girls offseason drive team to competition drive team, she inspires girls to step outside their comfort zones to try new roles, despite being in a male majority program. With the confidence to inspire fellow females to have a voice and the consideration to comfort anxious students, she is the rising tide that lifts all the females around her. This is also present in the pits at competitions where she teaches fellow females about controls troubleshooting techniques and instills confidence in them so they can take over those tasks. Her effort in inspiring girls is truly changing the entire team to have a more inclusive environment.

Whether it is coming in during lunches for driver practice, working on wiring the robot, or designing workshop curriculums, Julia is always looking for ways to improve. Julia asks questions to every mentor in order to fully grasp engineering and media concepts. She mastered design concepts for drivetrains, including custom gearboxes, structural components for chassis rails, and engineering calculations to optimize speed and acceleration. She is a leader on the electrical team, where she organizes the electrical board and wiring of the robot. She also learned the fundamentals of code including optimizing PIDs for elevator motors on our 2018 robot. Using industry level graphic design software such as Adobe Photoshop, Illustrator and Premiere, Julia never ceases to amaze us with her creativity. She designed logos for our outreach events such as Girls in STEM Olympics (GiSO) and also worked on video projects. As Games Coordinator for GiSO, she created challenges which involved programming skills, build challenges, and engineering design. Julia created an enriching environment for female participants of all varying skill levels and ages to enjoy the event. To ensure the level of difficulty of the problems, Julia went a step further and compared them to professional university challenges.

Many of us see Julia is already a leader. Her passion for STEM motivates her to spread FIRST all around her. Volunteering at multiple FRC and FLL tournaments as field reset or ambassador, Julia constantly gives back to the program beyond working on a team. At Professor's Lake summer camp, Julia designed the robotics workshop curriculum in order to teach engineering concepts such as mechanical systems. Furthermore, she used her expertise to teach robotics to newly immigrated students as part of a 20-week workshop series held by Team 1241 at Polycultural Immigration Services, a United Way agency. Julia used LEGO We-Do and LEGO EV3 in order develop design projects which included build and programming activities to bring FIRST to over 50 newcomers aged 5-12 in the past 2 years. What sets Julia apart is her ability to bring a level of positivity and enthusiasm where the students enjoy learning STEM concepts.

Our students look up to Julia for inspiration and knowledge. She truly appreciates everyone's opinion equally, and continuously encourages her peers to vocalize their opinions, especially females. Her friendly personality and ability to always make people laugh allows her to befriend anyone she meets. She embodies the spirit of a true FIRST student, but more importantly, she is a powerful influence on our team which motivates all our students to grow.