

Julia Bucci

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.

Through her experiences on the Warlocks, Julia has discovered a lifelong passion for engineering. Julia has pushed herself to learn new skills, such as coding in Python and JavaScript, outside of the C++ needed for robotics. While freshmen normally do not have much hands-on work during their first build season, Julia wired all of our 2020 robot.

As she's discovered these new skills, Julia has passed them on to younger students, especially women. Julia has recruited her sister to join our team, and actively looks to include her and the other women on her projects.

While it may sound like all Julia does is work, she also participates in our team game nights and loves talking to her peers. She says the fun of robotics is in the friends she's met and the strong sense of community she's found.

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

Julia spreads the message of FIRST through her passions both inside and outside of engineering. Julia is the lead engineer for our high school's morning announcements, making use of her technical skills and creativity.

In robotics, she noticed that our PR team had lost almost all its members due to our virtual year. She noticed this gap and combined her film and engineering skills to create the Media Club, which teaches Adobe Premier and edits our photos & videos, creating robotics videos for our community. This program has recruited students to PR, and built back a team we've greatly missed since COVID began.

Julia looks to combine her interests post-graduation, majoring both in engineering and film production. She looks to work for FIRST, utilizing her creativity and STEM capabilities.

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.

In her 3 years, Julia has taken on a lot of responsibility, becoming an integral member of our programming team, learning C++ and Python through our programming mentor's classes, as well as challenging herself to learn JavaScript. She also has taught herself how to solder, and now teaches our incoming students this valuable skill.

Julia now uses her 3 years of programming knowledge to wire and program a new mecanum drive base. While wiring this drive base, Julia is teaching rookies the fundamentals of electrical, passing on her vast knowledge to the next generation.

Julia also spearheaded our battery organization, testing and labeling all of our batteries. When she saw our battery cart was in disrepair, she designed and built a new storage system, which we still use at our competitions.

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

For 5 years, the Warlocks have actively participated in Lockport's Cystic Fibrosis walk. As a freshman, Julia helped our involvement and contributions, raising a few thousand dollars for research towards this disease. As everything began to go virtual, Julia maintained our involvement in this activity, organizing our involvement in the virtual walk.

Going forward, Julia looks to start a minority group for women and LGBT+ team members. She would like to host social events for these students, helping them become acquainted with others and establishing a strong sense of community. She also looks to start hosting minority months, talking about prominent minority individuals excelling in STEM careers. Julia looks to show that these careers are for everyone, not just a select few.

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

Julia has always been a leader in inclusiveness and diversity. She is a vocal member of the Student Advocacy Committee, having started and maintained her role as our Female Representative. Our team's women elect Julia every year, due to her advocacy for equal opportunity and treatment of female team members. When a team mentor made inappropriate comments, Julia advocated for regulating student/mentor interactions. Our team then drafted an Electronic Use Agreement, which specifies appropriate mentor/student conversations.

Due to Julia's advocacy, her peers see her as a leader, a teacher and a support system. Students know they can reach out to Julia with any concerns and know she will speak up for them. We know Julia will continue being an advocate for STEM women on our team and everywhere.