# The Blue Crew Mission Statement

Our goal as a team is to spread STEM (Science, Technology, Engineering, and Mathematics) values in our local community in Franklin County to help create the next generation of problem solvers and thinkers. We find it necessary to aid the next generation of problem solvers here in Western Maine to continue down the path of STEM.

# Meet Our Bot: Kylo

Our two 31 x 40" carbon fiber lift ramps were manufactured in our school's composites lab and feature a lightweight, durable design. Consistent deployment and strategically placed anti-slip metal latches enable reliable 'Face The Boss' ranking points.

Each ramp uses a custom built scissor jack driven by a VEX 775Pro motor with a 35:1 reduction. Kylo is capable of lifting two full weight robots simultaneously in 8 seconds.

Our cube manipulation solution consists of a piston-actuated intake with compliance wheels mounted on a 6-bar lift mechanism. Kylo specializes in rapid vault loading and switch control.



# Blue Crew Robotics: Team 6153





#### About Us

We are Blue Crew Robotics, an FRC team based out of the Foster Technology Center in Farmington, Maine.

Ever since our rookie year in 2016, we've been refining building techniques, recruiting talented new students, building our brand, and further interacting with our community in order to fully embrace the spirit of FIRST. Along the way, we've had the good fortune of competing in six competitions and winning numerous awards.

When we're not competing, you'll find us fundraising with our iconic root beer float stand, mentoring FIRST LEGO League teams, and demonstrating our robots in the community.

We pride ourselves on being an all-inclusive, student-driven FRC team whose goal is to promote STEM in our community and throughout Western Maine.



#### **Our Business Ventures**

Before the summer started, the team decided to purchase a root beer float stand from a local scholarship foundation that had previously used it for their fundraising. By attending local festivals and demonstrating our robot while selling root beer floats, we were able to pay for the stand and eliminate our \$6,000 deficit from the 2017 STEAMworks season. This is now our primary source of member fundraising-based income. This not only allows us to raise money, but it also allows us to create invaluable brand loyalty with customers that increases the awareness of our brand. In addition to operating the stand, we apply for grants and work with our community businesses for sponsorships.



#### Programming

This year, The Blue Crew has decided to program our robot in Python for the first time. In addition to this language change, we have been working very hard to introduce multiple autonomous modes this season.

### Our Safety Program

The purpose of the Blue Crew Safety program is to ensure the safety of our members and mentors. All team members are given instructions on proper use of hand tools, and must pass a mandatory safety test before operating any power tools or heavy machinery. Together as members and mentors, we collaborate to guide and inform those who are not well versed in the use of tools. Our safety manual is clearly written and easy to understand, and we make sure our members follow safety procedures that are administered to them. Materials safety data sheets documenting information about all hazardous substances used in the build process can be found in the back of our safety manual. To ensure the safety of our members we have emergency safety equipment that include latex gloves, sodium bicarbonate, and a safe enclosed area for broken batteries.

## Contact Us

Blue Crew Robotics 129 Seamon Rd Farmington, ME 04938

(207) 578-2202 contact@bluecrew6153.org

Visit us on the web: www.bluecrew6153.org