

Newton LigerBots Announce Winners of 3D Printed Parts Contest

Newton, Mass. June 5th, 2017 -- [The LigerBots](#), Newton's FIRST Robotics Competition (FRC) team, announced today that [FRC Team 2702, the Rebels of Ontario, Canada](#) have won the second annual LigerBots' 3D Printed Parts contest. The contest was open to anyone who used 3D printed parts for a robotics project, but aimed primarily at FRC teams that used 3D printed parts on their robot for the 2017 season.

Teams from as far away as Canada and California submitted parts ranging from camera mounts to a climbing mechanism. A panel of LigerBots student team members judged the entries against three key criteria: creativity in how teams solved a problem, elegance of the solution, and overall complexity. This year's FIRST challenge, called [FIRST Steamworks](#), required robots to deliver gears to a human pilot, shoot balls into a funnel, and climb a rope.

[FRC Team 2702 - the Rebels of Ontario, Canada](#) won the top award for 3D printing nearly all the parts on their robot. This included pieces designed to hold a gear, the mechanism to manipulate whiffle balls and the climber. Using 3D printing enabled them to stress test their parts on a test robot. Also, changing manufacturing from metal to plastic allowed them to rapidly improve their design while keeping both cost and weight to a minimum.

In second place was [FRC Team 2079 - 4H ALARM Robotics from Franklin, Massachusetts](#), who created a low-cost and light weight ramp that allowed them to funnel balls into their shooter. They created the part in a way that allowed them to add specific additional extensions to increase the length of the ramp.

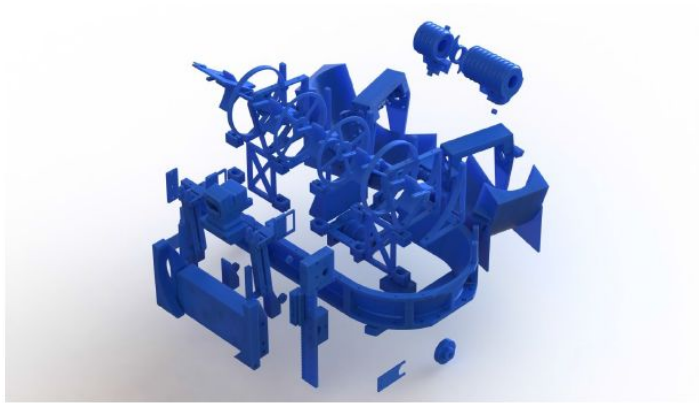
Third place went to [FRC Team 207 - METALCRAFTERS from Hawthorne, California](#) for the team's 3D printed climber. Using 3D printing enabled them to continually redesign and re-scale the piece as part of the design and build process.

Teams were creative in how they used 3D printing. Uses ranged from designing a part of a very specific shape or size not available commercially to using 3D printing for speed and cost reduction, allowing for repeated prototyping.

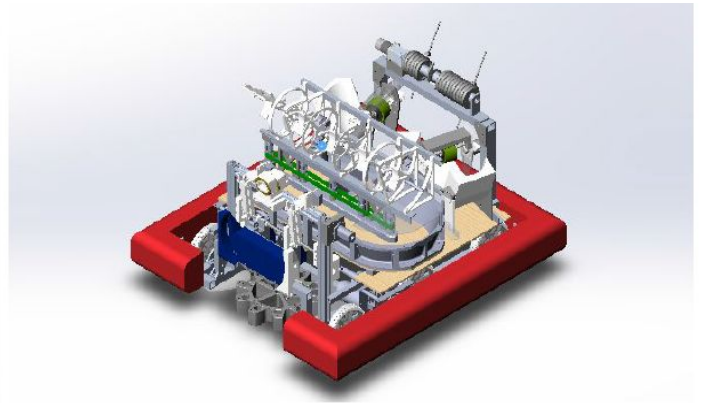
About the LigerBots

LigerBots is a student-run FIRST Robotics Competition (FRC) team composed of members from both Newton North and Newton South High Schools. Each year, students participating in the LigerBots design, build, and fundraise for a complex robot that plays a special game. The LigerBots are also actively involved in community outreach and community service projects with a particular focus on STEAM education. The LigerBots are sponsored by Analog Devices, PTC, Raytheon, Google, Dunkin Donuts, Village Bank, Shark Ninja, Whole Foods, Bose, McVittie Tax Advisors, You-Do-It Electronics, Honda Village, Tanowitz Law Office, The Newton Schools Foundation and Newton Public Schools, and can be found online at <http://ligerbots.org/>

Photos:



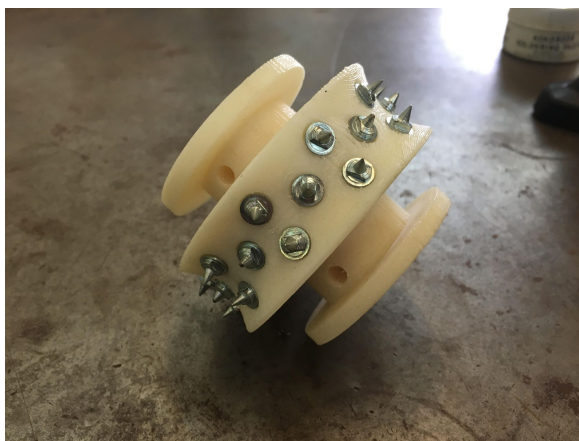
Left: All the 3D printed parts on 2702's Robot



| Right: A rendering of 2702's robot



An image of 2079's 3D printed ramp.



Team 207's climber, nicknamed the "Deathwheel"