

# 6328

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## MECHANICAL ADVANTAGE

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LITTLETON MA

*For Immediate Release*

### **Littleton Robotics' FIRST Robotics Competition Team Mechanical Advantage 6328 Finishes 2023 Season as Division Winner at World Championship in Houston, TX**

**(Littleton, MA) April 30, 2023** – Mechanical Advantage 6328, Littleton Robotics' FIRST Robotics Competition (FRC) team, finished the 2023 season by competing at the FIRST World Championship in Houston, TX held April 19-22, 2023 after finishing the New England District events ranked 5th of 185 New England teams. Mechanical Advantage's four-team alliance was the "Archimedes" **Division Winner** after the divisional double elimination playoff bracket, qualifying them to compete in playoffs on the "Einstein" field against the winning alliances from the other seven divisions. The team was eliminated before the Einstein Finals but was honored to play on that field with the best-of-the-best in the world for the second time in back-to-back years.

At the World Championship, 620 high school FRC teams competed across 8 divisions, including 32 from New England, giving Mechanical Advantage the opportunity to play with and against some of the top-ranked teams from around the world and spend three days working closely with the people behind those teams. In total, more than 50,000 people attended.

Mechanical Advantage 6328 also brought home an **Innovation in Control Award**, recognizing the sophisticated software control technologies developed by team students. Quad-camera vision-driven field odometry tracks field markers for precise positioning, while the robot's arm control – including collision-avoidance and path-planning – is managed using numerical optimization. This technology enabled sophisticated automated game-piece pickup and placement, causing Mechanical Advantage 6328 to have the **world's highest** autonomous performance ranking (out of 3,286 teams).

"I am blown away by our students' commitment to reaching, and surpassing, their technical and business goals this season even while integrating a large number of new students and mentors," said Brett Bonner, one of the Technical Mentors for Mechanical Advantage 6328. "Working together over this season and seeing our students step up into effective leadership roles has been incredibly rewarding. With only about eight weeks to design and build a 125-lb robot, the team got creative and planned out how to get the work done. That kind of adaptability is a core value of FIRST and our program and provides the real-world engineering experience necessary for tomorrow's technology leaders."

Additional team accomplishments through the 2023 season include:

- Running nine *FIRST* Lego League teams in Littleton and Bolton for 4th-8th grade students
- *FIRST* Impact Award and Event Winner at the Rhode Island district competition, March 4-5, 2023
- Automation Award and Semifinalist at the WPI district competition, April 1-2, 2023
- *FIRST* Impact Award and Division Finalist at the New England District Championship, April 6-8, 2023

The *FIRST* Impact Award is based on a team's history of commitment to community engagement and support of STEM education and advocacy for all ages, recognizing a team that is a role model for embodying *FIRST*'s goal of inspiring future science and technology leaders and encouraging more of today's students to enter STEM-related careers.

The Littleton Robotics programs are open to students in any of the area communities. For more information about the programs for 4th-12th grade students, please contact [info@littletonrobotics.org](mailto:info@littletonrobotics.org) or visit the team's website at [www.littletonrobotics.org](http://www.littletonrobotics.org). Follow along with the team on Facebook ([Mechanical Advantage](#)) or Instagram ([@frc6328](#)).

Littleton Robotics will be hosting an open house and information session about joining the program on June 17, 2023 at 4pm at their workshop (20 Harvard Road, Building D, Littleton MA on the campus of Patriot Beverages).

### **About *FIRST*®**

Accomplished inventor Dean Kamen founded *FIRST*® (For Inspiration and Recognition of Science and Technology) in 1989 to inspire an appreciation of science and technology in young people. Based in Manchester, N.H., *FIRST* designs accessible, innovative programs to build self-confidence, knowledge, and life skills while motivating young people to pursue opportunities in science, technology, and engineering. With support from over 200 of the Fortune 500 companies and more than \$25 million in college scholarships, the not-for-profit organization hosts the *FIRST*® Robotics Competition for students in Grades 9-12; *FIRST*®Tech Challenge for Grades 7-12; *FIRST*® LEGO® League for Grades 4-8; and *FIRST*® LEGO® League Jr. for Grades K-4. *Gracious Professionalism*® is a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community. To learn more about *FIRST*, go to [www.firstinspires.org](http://www.firstinspires.org).

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