



National Robotics League Colorado

A S.T.E.M. PROGRAM

WELCOME INDUSTRY ADVISORS!

NRL Colorado is a job-driven, project-based STEM learning experience that was created by the manufacturing industry to solve its biggest issue – **recruiting a future workforce**.

NRL Colorado builds on success of robotics programs in our community and makes a direct tie to careers for the next generation — careers in manufacturing.

Why Is It Important?

- There is a **skills and interest gap** in manufacturing.
- **2.4 million manufacturing positions may go unfilled by 2028** (according to a Deloitte Study).
- 90% of parents recognize that a strong manufacturing base is critical to the US economy, but only **30% of parents would support their child's pursuit of a career in manufacturing**.
- **NRL Colorado attracts smart, capable students** who love to build things and solve problems.

Benefits of becoming and Industry Advisor

- **Build your own pipeline** of skilled manufacturing workers and improve the recruitment of new workers.
- Identify, use and reward untapped resources within your current workforce—**enhance their skills and reinvigorate existing employees**.
- **Influence curriculum enhancements** at schools to increase instructional effectiveness.
- Create **community goodwill and positive PR**.
- Ultimately **reduce hiring and training costs**.

Program Overview

NRL Colorado is a manufacturing workforce development program of the Rocky Mountain National Tooling & Machining Association (RMTMA) to help machine shops fill their workforce pipeline by partnering with local schools.

Students design and build 15-lb remote controlled robots to face-off in a gladiator-style competition.

Through the manufacturing process of bot building, students' imaginations are captured as they design, build and compete with their own robotic creations. Students gain practical knowledge of Science, Technology, Engineering, and Math (STEM) - all essential skills for manufacturing.

By formalizing ties between schools and industry advisors, students gain a better understanding and become enthusiastic about the career possibilities in manufacturing.

Time Commitment

Depending on the needs of the students, could be 6 hours of instruction and tour opportunities and 0-30 hours of machining, depending on the school's capabilities.

INDUSTRY ADVISOR'S ROLE



The success of the NRL depends on willing Industry Advisors/mentors like you from local manufacturing companies. **Only with your help are participating schools able to expose students to years of expertise and a real-world manufacturing environment.**

If you decide to participate, **you'll designate one or more of your employees to fulfill the duties of technical advisor**, which include:

- **Meet with the team at their school** to assist with the design and planning (1-2x; 2 hours min.).
- **Assist the team in the process of building the 'bot**; this could include machining parts, welding, etc., and/or training the students to accomplish these tasks; it can also include introducing them to other manufacturing companies and/or vendors (ranging from 3 hours min for design help). Additionally, if able to help with machine time, 20-40 hours of spindle time. This can include incorporating students onto the production floor.
- **Explain the importance of documentation** in the manufacturing process; provide real-life examples so the students can understand why it's a critical component of the project (1 hour min.).
- **Take the students on a tour of your facility** and create opportunities for them to interact with your employees to learn about the benefits of working in manufacturing - this can be an Open House in the evening where students and parents can attend (up to 1 hour).
- Provide the team with **access to raw materials** (through your excess materials or your suppliers)
- **Review their binder and 'signoff' prior to the Competition** (30-minute review, one week before competition).
- **Attend the competition on April 15, 2023** at Cherry Creek Innovation Center, Centennial, to show support -- consider assisting them in the pit.
- **Attend Zoom check-ins with NRL Committee** to provide updates/concerns so we can help you.

Please sign the attached commitment letter and email it to nrlcolorado@rmtma.org.

For the manufacturers and job shops that take on the role of NRL Industry Advisor, the excitement of competition is just the beginning; they'll help turn the students they mentor into passionate and skilled future job candidates.