MVRT

SPONSOR PACKET

Monta Vista High School
Cupertino, CA

MONTA VISTA ROBOTICS TEAM 115

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Monta Vista Robotics Team

Contact

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Statistics

1997 founded

129 registered students

5 mentors

Awards

Finals: 12
Chairman's/Impact: 3
Entrepreneurship: 4
Dean's List: 3
Quality: 1
Safety: 1
Innovation in Control: 1
Engineering Inspiration: 3
Spirit: 2

What is the FIRST Robotics Competition (FRC)

Founded in 1989, FIRST (For Inspiration and Recognition in Science and Technology) prides itself on its leadership in the scientific arena and its commitment to building a strong foundation for the country's future workforce. One of FIRST's main goals is promoting scientific innovation through the annual FIRST Robotics Competition (FRC), designed to immerse high school students in real-life engineering in the spirit of "Gracious Professionalism" to others. Each year FIRST develops the competition by supplying an objective to teams of students, who have six weeks to conceptualize, design, build, and test their robotic solution through a series of two-minute qualification and elimination rounds during a three-day competition. This format requires that teams strategize and build into their design both offensively and defensively.

Overview of MVRT

Founded in 1997, the Monta Vista Robotics FIRST Team #115 was established by a few friends looking for a way to venture into robotics and STEM. Over the last 25 years, our team has grown from its humble beginnings in a physics classroom into a team with a lasting impact on its community and students. Today, we have over 120 members and 1500 alumni, with projects and partnerships connecting us to people in our community and around the world.

MVRT Mission Statement

Dedicated to fostering a passion in science and technology within our community, the Monta Vista Robotics Team inspires students and develops interpersonal skills through team-based engineering challenges.

Through the program students are able to:

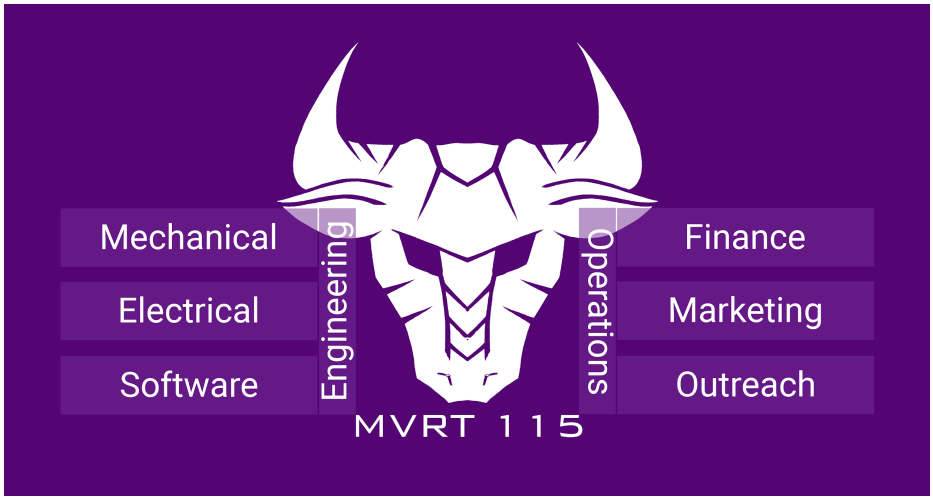
- Learn how to work in a team and develop communication skills
- Develop engineering skills in Mechanical, Software, and Electrical
- Work alongside mentors in the industry to gain firsthand experience
- Maintain a team budget and lead outreach programs within our community
- Promote good sportsmanship
- Take part in leadership opportunities

Team Overview

	Established March 1997	Current: December 2023
Members	9	129
Officers	1	12
Mentors	1	5
Community Service	None	Over 75,000 hours

Type	Year
Regional Chairman's Award/District Impact Award	2010, 2023, 2026
Championship Division Winner	2001
Championship Division Finalist	2017
Regional Winner	2003, 2008 (x2), 2017
Regional Finalist	2001, 2002 (x2), 2009, 2010, 2020, 2023
Regional Engineering Inspiration Award	2004, 2009, 2022
Woodie Flowers Finalist Award	2004 (Ted Shinta)
Dean's List Finalist Award	2016 (Akhil Palla), 2017 (Saurav Pahadia), 2019 (Divya Satrawada), 2021 (Arnav Dalal)
Dean's List Winner	2019 (Divya Satrawada)
Gracious Professionalism Award	2008, 2012
Entrepreneurship Award	2007, 2015, 2018, 2019
Regional Spirit Award	2019
Championship Spirit Award	2022

Team Structure



MVRT is divided into two departments: Engineering and Operations. Engineering is subdivided into Mechanical, Electrical, and Software, whereas Operations is subdivided into Outreach, Marketing, and Finance. During build season, the Engineering and Operations directors select a group of team leads, who work within their project teams and communicate with officers through Discord. MVRT also utilizes social-media platforms for advertising team image and keeping the community informed on upcoming dates and activities.

Mechanical

The mechanical division is responsible for designing, prototyping, and fabricating the robot each year. Students learn how to use CAD (Computer-Aided Design) and work with tools such as a CNC router, laser cutter, mill, and lathe.

Electrical

Within the electrical division, students learn how to wire, solder, and crimp and apply the concepts of electrical engineering to design and wire the robot and implement pneumatics.

Software

The software division develops code for the robot, website, and other team applications. Students learn and apply their knowledge about computer vision, autonomous driving, and controlling mechanisms on each year's robot.

Outreach

The outreach division organizes and maintains initiatives to impact our community, through STEM education programs, demo's, and networking. A full list of programs can be found below.

Marketing

The marketing division manages internal and external team affairs, design marketing materials, and uphold the team brand and ensure a professional team image. The division additionally creates content for the general public to consume.

Finance

The finance division budgets and maintains team funds, connects with corporate sponsors and maintains relations with our sponsors. The division also manages team purchases and reimbursements.

Current Financial Status

MVRT has various expenses throughout the year in order to maintain both our large member base and the multitude of projects that we take on. We provide the majority of our outreach programs without cost, so a portion of our funds goes towards their resources. We also build a robot to compete at annual FRC competitions from scratch, so expenses include materials for the robot and travel costs for our members, which all culminate in roughly $30,000 on average annually.

For the 2025-2026 season specifically, our team worked hard to qualify for the Northern California District Championship. The competitions were a memorable and insightful experience for our members, and our team invested in giving many of our members the opportunity to attend and in maintaining a competitive robot.

Moving forward, we hope to continue to partner with STEM focused companies to continue to provide both our team's members, alongside our local community, with invaluable STEM exposure.

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Sponsor Relations

MVRT's sponsors provide us with a variety of support, ranging from monetary contributions to store discounts, mentors and more. They provide us with mentors and grants to fulfill our engineering aspirations. MVRT sends donors event recaps, weekly build season updates, newsletters, and handwritten thank you notes. We maintain strong partnerships with our sponsors through attending sponsor events, working on special projects, inviting sponsors to team events, providing members internship opportunities, and more. In recognition of their generosity, MVRT recognizes its sponsors by displaying their names and logos on our team website, apparel, banners, robots, and more. These efforts have resulted in long-standing partnerships, some lasting longer than 10 years.

We accept support in the form of:

- Monetary Donations
- Contributing advisory support of paid volunteering hours
- Donating equipment (software, hardware, parts, etc.)
- Donating or providing a discount on goods and/or services
- Matching donations

We maintain strong partnerships with our sponsors through:

- Working on special projects (Google Home Arm, Intel RealSense Camera)
- Attending sponsor events (Intuitive Surgical's Open House, Intel Kids Day)
- Inviting sponsors to team events (Kickoff, Regionals, Awards Night)
- Providing members internship opportunities
- Keeping open communication (Newsletters, End of Season Report)

We recognize our sponsors by displaying name/logo on:

- Team Website
- Apparel
- Team Banners
- Robot Side Panels

Current Sponsors



Outreach Programs

WJO Taiwan



Continuing a partnership that has lasted a decade, MVRT invites 25+ international students annually from Taiwan in collaboration with the World Journal Organization to tour our facilities and learn about the FIRST Robotics Competition. MVRT also holds demos for the Taiwan Exchange Students.



SISTERS in STEM

Sisters in STEM (SiSTEM) is a program founded by our female veterans in 2016 to combat the lack of girls in STEM and encourage more females to join the team. Many girls felt uncomfortable to be a part of the team, especially in the engineering divisions, causing MVRT to experience low retention rates of female members. The SiSTEM initiative was introduced to recognize the gender gap that currently exists in engineering fields and provide a solution to the problem. With this program, we have had a 55% increase in female attendance and member retention.



STEM4KIDS

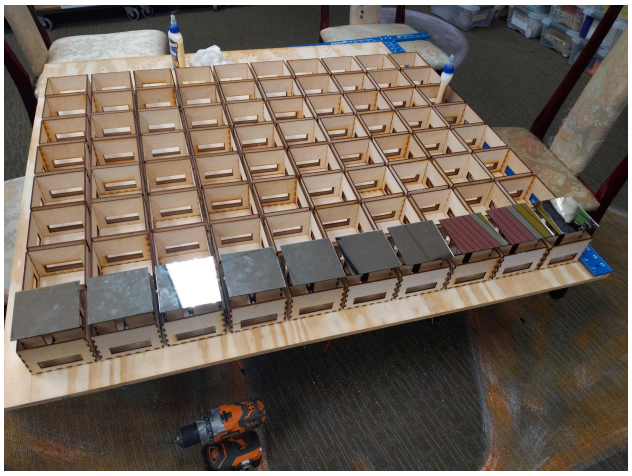
STEM4Kids is an online program in which MVRT members teach students in underfunded communities worldwide the fundamental physical, life and computer sciences. We send these video recordings out to schools but also offer 1 on 1 support for students, leading us to educate over 90 students over the past two years.

FIRST LEGO League (FLL)

Each year MVRT students mentor over 50 middle school students spread across 6 FIRST LEGO League (FLL) teams. Through this program, MVRT members teach students engineering, programming, and team collaboration skills through hands-on activities. Since its establishment in 2003, MVRT has mentored over 68 FLL teams and many of these mentored students go on to join MVRT and other robotics programs in high school and build off the foundation they gained in FLL.



Hongyun Art



Our Hongyun Art program combines STEM and art classes for kids through a partnership with Hongyun Art studio. We offer camps in Scratch, Python, Java, and Arduino, where students from both MVRT and Hongyun Art benefit by gaining insights in art, creativity, and STEM skills. Our engineering instruction enables art-oriented high school students to create interactive art installations, like a 17-by-5 foot array of wooden tiles that respond to viewer's movements with changing angles and reflective light

Eureka & Ohana



MVRT formed a partnership with the Ohana Club, a club at Monta Vista dedicated to providing special education students with as many skills as possible, to teach students STEM concepts in an interactive, hands-on way. Throughout the years, our curriculum has evolved and improved based on feedback from both the Ohana students and the Ohana officer team. The program was founded in 2012 and has grown to have over 60 special education students participating in the program.

Bloom



MVRT offered the local community free STEM education by holding weekly classes at elementary schools, developing a curriculum to teach basic engineering skills. Along with this, we also taught students from Nigeria, Kenya, Georgia, India, Uganda developing curriculums in CADing, web development, and Java. Along with learning these technical skills, students also practiced their soft skills like communication and teamwork. The program has since taught over 25 students, and we hope to continue impacting our local and international community.

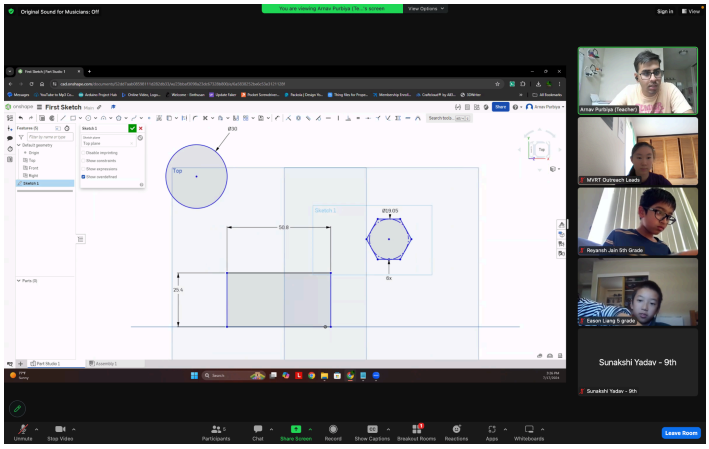


Headstart

MVRT created a program to give middle schoolers an insight into the world of FRC before becoming high schoolers. We teach students how to CAD, wire, and program their own FRC robot. Along with the engineering, we also guide them on how to talk to judges like in a real competition, showing off how their robot was created. Since 2022, our team has taught over 100 students what it is like to be in an FRC team.

CADology

MVRT created a program as part of our Pipeline of programs which starts at FLL and ends with Headstart, to teach elementary and middle school students simple CAD. It's an online program taught for 3 weeks during the summer in order to teach elementary school students TinkerCAD, while we teach middle school students Onshape. Our members teach the sessions and give projects for the students to do, with it all ending with a final project that the students showcase during the final session. Since 2022 we have taught over 200 students about CAD.



Engineering Projects

MVRT enhances its engineering department through year-round projects that cover mechanical, electrical, and software aspects of engineering. In software engineering, veterans participate in hackathons to write code for other teams' robots from the past season to master concepts in robot control, as well as familiarize themselves more with robot simulation. In mechanical engineering, veterans design robots for FRC games from previous years in Onshape CAD to explore different subsystems and complex robot mechanisms, working closely with the electrical team to ensure designs leave room for electrical components.

Where We Go


UCLA
BRUINS
SAN JOSE STATE
SWARTHMORE
HARVARD
OHIO STATE
NYU
PURDUE
UNIVERSITY
ILLINOIS
RICE
UNIVERSITY OF SAN FRANCISCO
Penn
University of Pennsylvania
MIAMI UNIVERSITY