

Letter from the Officers:

Dear Parents, Members, and Alumni,

Build season is right around the corner! MVRT will be hosting its 7th Annual Kickoff Event on Saturday, January 3rd at 1PM, and we hope to see all of you there! Other teams are invited to join us in the Monta Vista Auditorium to watch the taped kick-off and listen to alumni Anant Singhania and Karen Feng discuss game strategy, and Ashwin Mathur talk about kick-off organization. Details about build season will be posted on the website.

MVRT has had a busy summer and fall semester. In addition to trainings for both rookies and veterans during the summer and fall, we held and attended many outreach events. We were invited to demo at the Santa Cruz County Elementary Science Fair on March 8th. On May 17th MVRT demoed at the Maker Faire. We attended STEAMFest at Reid-Hillview Airport with 5 other robotics teams on July 12th, the annual Robonanza, a friendly robot scrimmage, held at Intuitive Surgical on July 29th, had a booth at the Santa Clara County Fair on August 2nd, and taught two one-week sessions at Kwan Academy in science and robotics. Team members led five FLL teams at Kennedy Middle School, and taught ThinkFIRST sessions at Collins and Faria Elementary. On September 13th MVRT was a co-sponsor of the robotics demonstration at the Fall Festival (Silicon Valley Fall Festival). We were invited by Google to attend their Science Fair on September 22nd where high school students from all over the world displayed their projects ranging from environmental clean-up to medical advances. On September 27th team members were invited to Intuitive Surgical to tour their facility and try out the Da Vinci robot.

In addition, MVRT was chosen by FIRST in May to help with beta testing a new robot control system, the roboRIO made by National Instruments. We are one of three teams in Northern California to be selected for this important task. This is the third time that MVRT has been chosen for beta testing, and it is a great honor.

One of the high points of the season was CalGames, an off season event held on October 3rd and 4th. MVRT not only had a table answering questions about the beta testing but were finalists in the games!!!

The other big project for MVRT was to host a FLL Qualifier Tournament on November 22, 2014. This was spearheaded by Pramukh Govindaraju, a longtime coach for his brother's FLL teams. We had parents and team members help set-up and run the tournament successfully enough that teams asked us to hold another tournament next year!

During build, we encourage parents to donate and contribute to the team as we progress through the season. Please come by for our design reviews as we encourage feedback from parents and mentors about robot design and strategy.

Thank you, and we look forward to an exciting season.

The MVRT officers

Archana Kikla, Andrew He, Chirag Toprani, Lee Mracek, RJ Cunningham, Divek Toprani, Michelle Danese, Praxis Bays, Jeremy Chen, Sophia Cao, Svdnev Howard. and Shovik Guha



MVRT at Toys for Tots

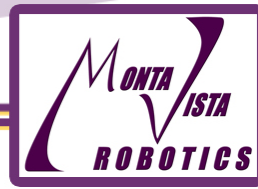
Upcoming Events:

December 29th, 30th, January 2nd from 1 – 6 PM: Pre-Build preparation; West Coast Drive Chassis is being finished; Beta Testing is finishing as well

01/03/15 (1 - 6pm): Kickoff – 2014-2015 FRC Game Video and Challenge are released; strategy discussion; team pictures; MV Auditorium

1/03/15 – 2/17/15: Build Season; We will meet from 3-6 on Monday, Tuesday, and Thursday, 3-7 on Friday, and 1-6 on weekends

Keep in mind that we will not be meeting on Wednesdays this year, although times are subject to change



Division Descriptions:

President: Archana Kikla

The President is responsible for the overall excellence and running of the team. He or she interacts with the school. Helps the Operations VP with the awards and makes sure that the robot construction is on time. Represents the team at outside functions.

Engineering:

Engineering: Andrew He, Vice President

The Engineering Vice President is responsible for making sure the mechanical and electrical divisions work together to create a functional robot. He is also in charge of planning and making sure the work stays on schedule.

Mechanical: Chirag Toprani, Director

The Mechanical division is focused on designing and building the structural aspect of the robot. It splits the robot into subsystems, including chassis, and different manipulators. 3-dimensional CAD (computer-aided-design) modeling is an integral part of the initial build stages for mechanical, using the program SolidWorks, which members have been trained to use. Members are trained to use hand and power tools safely.

Electrical: Lee Mracek, Director

The Electrical division is focused on programming and wiring the robot. It splits the robot into drivetrain, manipulator, camera, and sensor groups. The Electrical division uses the coding language LabVIEW, and tests functional aspects of the robot. Incoming members are trained in the wiring and programming. This year the electrical division took the lead in running the control system beta test.

Engineering Documentation: RJ Cunningham, Director

The Engineering documentation, or Engineering Data division is responsible for recording and archiving events of build and competition, including testing. The division manages the engineering notebook for each build season, and oversees side projects during the fall and summer. Additionally, the division manages software such as SVN and SolidWorks PDM. During competition, the division is in charge of scouting, and knowing the FIRST rules for competition.



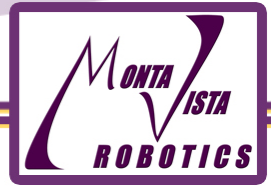
Nihil Muthaiah grinding a part



Lee Mracek (far left) leading his crew.



Andrew He leading beta testing.



Operations:

Operations: Divek Toprani, Vice President

The Operations Vice President is responsible for guiding the other departments in operations and making sure that tasks are completed and on time. Responsible for Chairman's, Entrepreneurship, and Woody Flower's Awards submissions.

Public Relations: Michelle Danese, Director

Public Relations is responsible for improving and maintaining MVRT's relationship with the Cupertino's local government and organizations. A few of the division's primary focuses are to ensure the continuation of previously established events and to seek new events to improve MVRT's communal impact.

Outreach: Praxis Bays, Director

The Outreach division is responsible for planning and executing MVRT's annual youth engineering programs in the community, nationally, and internationally. Programs include FLL(FIRST Lego League), FTC(FIRST Tech Challenge), ThinkFIRST, Kwan Academy, and Isha Vidhya. Additionally, Outreach is responsible for seeking out rookie and struggling FRC teams in the local community, as well as implementing new STEM curriculums in local elementary, middle, and high schools.

Finance: Jeremy Chen, Director

The Finance division is responsible for raising and managing MVRT's money, raising a total of \$40,000 this year. Members write grants, and allocate budgets for the team.

Media: Sophia Cao, Director

The Media division manages the creation of the Safety Animation and all MVRT graphics and apparel. Members submit content for the Media and Technology Innovation Award: an animation that displays the team's impact on the community.



MVRT at Fall Festival 9/13/14



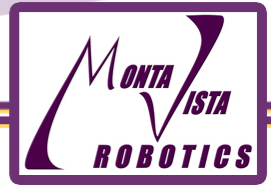
Excitement at FLL Tournament 11/22/14



Heather Baker taking pictures at SVR



Sophia Cao teaching her media team.



Operations:

Documentation: Sydney Howard, Director

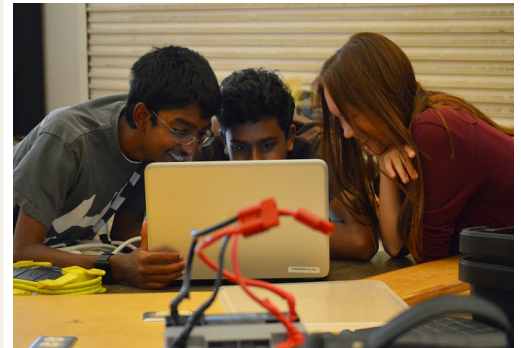
The Documentation division ensures that all of MVRT's actions are accurately recorded, organized and published for the public and members to see. It is responsible for updating all publications and logging service hours during outreach and volunteering events.

Website: Shovik Guha, Webmaster

The Website division, as part of the Documentation division, maintains and updates the website on a timely basis. Members work with the webmaster to code the website.

PLANNED COMPETITIONS

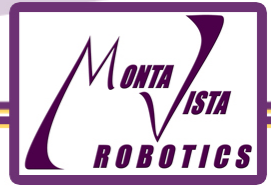
March 12 – 14, 2015	Utah Regional Salt Lake City, Utah
April 2 – 4, 2015	Silicon Valley Regional San Jose State University
April 22 – 25, 2015	Championships St. Louis, Missouri



Siddharth, Akhil, and Heather website



Daniel Koh working on electrical



Division Updates:

Mechanical – Mechanical has been preparing for the upcoming build season by reviewing basic concepts of mechanical design and development, including Robot Design, Tool Usage, and 3D CAD skills. Mechanical is building a new West-Coast Drive in preparation for the build season to be used as a test for the robot's new chassis and training for the drivers.

Electrical - Electrical has finished rookie trainings, and is testing sensor feedback and vision code. Electrical is experimenting with Java as the programming platform and may switch for the build season.

Engineering Data - Engineering Data has been working on documenting the process of beta testing next season's version of Labview (team's programming language).

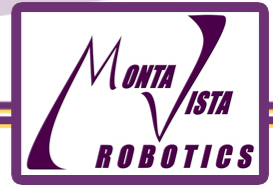
Public Relations/Outreach - MVRT is actively pursuing new outreach activities. The FLL program has finished with the first annual MVRT FLL tournament. The ThinkFirst programs at local elementary schools are nearing conclusion.

Finance - The Finance division is resuming work on grants for the upcoming year. Finance has finished trainings on writing basics, budgeting and preparing to write the business plan for build season.

Documentation - The Documentation Division is beginning work on creating the video for the prestigious Chairman's Award and also continuing to document events that are related to our team.

Website - The Website Division is almost finished creating a new website, and will put it up before the start of the build season.

Media - Media has been wrapping up Fall trainings, and finished and submitted the Safety Animation, and will begin to create graphics and t-shirts for the upcoming year.



Hello From the Mentors,

For those of you new to MVRT, here's a quick introduction from the main mentors. There are many people who help the student-led team accomplish all that they do, from advising on the design and construction of a competitive robot to reviewing business plans and financial statements.

David Greenstein is the team's teacher advisor, without whom we can't be a campus club. There are three non-teacher mentors who are FUHSD employees, which means they are fingerprinted, TB tested and allowed to carry keys to the school and be with the students. Mauri Laitinen and his wife, Connie Laitinen started helping with the team in the fall of 2004 when their daughter, Eileen, was involved. Mr. Laitinen has an extensive background in computer systems. Mrs. Laitinen brings a background in volunteer-based organizations like AYSO and midwifery groups to help with operations. John Yelinek started two years ago with the team and has been VP of sales for many of the EDA companies in Silicon Valley.

The team also has ongoing help from Ted Shinta, the woodshop, ROP, electronics, and drafting teacher, who has an ME and is an experienced machinist. Mr. Shinta not only trains team members in how to use our Bridgeport mill and other shop equipment safely and accurately, but helps the team with ideas on what will and won't work on the robot.

We have many other mentors who give their time to help the team during the build season whose help is invaluable. We invite other parents to come by and help. We plan to publish information about them soon and feature them on the MVRT website.

Our job is to provide advice, answer questions, help with training, keep the lab area safe, and tell bad, often punny jokes. Year after year, we are impressed with the young adults we are working with. Feel free to contact us if you have questions and comments.

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Connie Laitinen cdhl@laitinen.com

John Yelinek johnyelinek@gmail.com

David Greenstein david_greenstein@fuhd.org

Parents' Booster Club:

Dear Parents,

In speaking to some of the parents of MVRT members, we came up with the idea of a parents' group similar to the band and athletic boosters clubs. It would be a support group for the team to make sure that semi-healthy snacks are provided during build, along with meals on the long days.

It would also be a group to turn to for car pooling and transport and help with passive fundraising. For example, there is information in this newsletter about eScrip. So, if you shop at Safeway and enter your card number, the team gets a small amount of cash.

The other way that parents can help raise funds is to check with their companies for various matching programs, like cash grants in return for volunteer hours or donation matching. Additionally, if companies provide grants, parents could relay contact information to the team's finance group.

One of the best kept secrets about FIRST is that there are more than \$16 million in scholarships available for team members. As parents, it's worth looking at the offerings. Go to the FIRST website

<http://www.usfirst.org/roboticsprograms/frc>

As part of FIRST, the premiere STEM organization in the U.S., the team is STEM education in action and also provides real life financial and business lessons.

Finally, please keep MVRT in mind if you know of summer internships at your company. The team prepares students to be superior contributors and their success reflects well on the team.

Please contact publicrelations@mVRT.com if you are interested in being part of a MVRT parents' club.

Thank you.

Connie Laitinen



FIRST Scholarship Opportunities (for juniors and seniors):

Every year, over \$20 million in scholarships are available to robotics team members through FIRST. These are underwritten by universities and businesses. Some scholarships are specific to a college or major; some are general. Not only does it benefit the team members, it also enhances the image of the team to be well represented with FIRST scholarships.

The majority of FIRST Scholarships require that a participant submits an application during his/her senior year of high school. There are, however a few FIRST Scholarship Providers who accept applications during an applicant's junior year, and even more importantly, Rensselaer Polytechnic Institute requires that an applicant apply during their junior year.

Please visit the FIRST Scholarship page: <http://www.usfirst.org/scholarshipsearch.aspx>

Note that the deadline for some applications is Jan. 1. These include the following:

- Carnegie-Melon University
- Adelphi University
- George Fox University
- Olin College of Engineering

To learn about the other benefits, such as internships, that become available once you become a FIRST Alum! <http://www.usfirst.org/alumni>

Contact Us:

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