



Team Handbook

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Introduction

Welcome to Team 254! We are excited to have you as part of the Team 254 Cheesy Poofs, a partnership between NASA ARC (Ames Research Center) and Bellarmine College Preparatory. This handbook contains the key policies, goals, grading system, and expectations of Team 254 and its members along with other information you will need.

The success of team 254 in robotics and its numerous other activities is built by the creativity and productivity of our members. If you consider your participation in this team as an employee would his company, your work, everyone's work, is essential to fulfilling our program's goals every day. We cannot stress more the importance of each member's commitment and responsibility in keeping our team running smoothly. We hope that in Team 254, you will acquire and continue to use such life skills through college and your future careers.

Dedicated student members of Team 254 have ensured the continued success of the Cheesy Poofs as we enter our 14th season. We are proud of the accomplishments of the past Cheesy Poof teams, and the foundation which they have built; we are grateful for the opportunities NASA, FIRST, VEX, and Bellarmine College Preparatory prepare us for; and we are honored to carry on our past traditions of excellence. We look forward to the opportunity to continue to give back to the Bellarmine, FIRST, and VEX communities in every way we can.

At Team 254, we look forward to new members and happily welcome them to join our diverse community. We invite new members in the hope that they will grow to appreciate our robotics team as we do. As for our veterans joining our team for yet another year, we welcome you back; hoping that you will get as much or even more out of this experience than you did before.

Mission Statement

- We strive to spread understanding and appreciation for science, technology, engineering, and mathematics (STEM) in our community.
- The team aims to be role models in our community, using our knowledge and resources to help other teams succeed.

- We encourage collaborative learning both within our team and in our community as a whole. Students meet and work with other robotics teams locally and nationally, building friendships and learning from others.
- We work to promote life skills such as teamwork, responsibility, time management and accountability and prepare members for leadership roles in our community and in their professional lives.
- We give students opportunities to experience real-world engineering, be involved in technical and nontechnical processes and work with industry professionals.

Team Eligibility

Any motivated and interested student at Bellarmine College Preparatory is eligible to join Team 254. Furthermore, male students attending schools without robotics programs are eligible to join. Non-Bellarmino students will be dealt with on a case-by-case basis. For more information, contact Mrs. Ann Roemer (see contact information below)

How to Join

To join Team 254, fill out the contract on the last page of this handbook and give it to Mrs. Ann Roemer. Students may join at the beginning of either semester and are committed to remain on the team through the end of the semester. Students who join in the fall will be automatically enrolled for both semesters. The deadline to join for the fall semester is Friday, October 7th. The deadline to join or quit for the spring semester is Friday, January 20th.

About

Team 254 participates in three robotics competitions as detailed below.

FIRST Robotics Competition

FIRST, which stands for "For the Inspiration and Recognition of Science and Technology," is a nonprofit organization founded by Dean Kamen in 1989. The FIRST Robotics Competition (FRC) combines gracious professionalism with technology. FIRST is a unique partnership between industry and academia, resulting in an environment that fosters a deeper appreciation for science and technology. Students work side by side with professional engineers and knowledgeable mentors to learn while doing, giving students real engineering experience.

VEX Robotics Competition

The VEX Robotics Competition is a competition utilizing the VEX Robotics Platform, a robotics system engineered to be affordable and reliable in a classroom and extracurricular setting. VEX Robotics continually encourages integration of classroom curricula and robotics, which prepares students to face more challenging engineering trials in future careers. In VEX, adult engineers and mentors help guide teams along, sharing their invaluable knowledge and expertise when needed.

Zero Robotics Competition

The Zero Robotics Competition is a programming competition that challenges students in a real world programming environment to design and build software for a specific game challenge. Zero Robotics is unique in that the team does not build any hardware and it is an entirely software-based challenge.

Team History

Team 254 was founded as a part of the NASA Ames Robotics Alliance Project in 1998. Originally a small team located at Broadway High School, it has grown quite large and relocated to Bellarmine College Prep. While the team's student members have changed, the Cheesy Poofs have continued to flourish. Notable events include:

- 1999 - 254 first competes in FIRST Robotics Competition

- 2001 - 254 moves from Broadway to Bellarmine College Preparatory
- 2004 - 254 wins the FIRST Chairman's Award, the highest award in the FIRST Program
- 2009 - 254 first competes in VEX Robotics Competition
- 2011 - 254 wins the VEX Excellence Award, the highest award in the VEX Program
- 2011 - 254 wins the FIRST World Championship

What We Do

Team 254 students participate in a number of projects, many of which are described below. Any student is welcome to participate on any project, and no prior experience is necessary.

Animation

Led by animation and graphic design head Aaron Johnson, the animation team produces animations each year to compete in animation competitions as part of the FIRST and VEX programs. The team primarily uses 3ds Max, a professional-grade modeling and animation package.

Archiving

Led by vice president Saurabh Sharan, the archiving team records team participation and keeps in contact with team alumni.

Award Distribution

Led by animation and graphic design head Aaron Johnson, the team designs and creates awards to give to sponsors in recognition of their support of our team. The team distributes similar awards to other teams at competitions to recognize their achievements.

Award Submissions

Led by vice president Saurabh Sharan, the team writes and enters submissions for several FIRST and VEX awards such as the FIRST Chairman's award and the VEX Excellence award.

Competition Preparedness

Led by competition head Reiley Weekes, the team ensures the team packs for competition, designs the pit layout, and organizes shipping of the robot.

Lab Organization

Led by competition head Reiley Weekes, the team ensures that the team will be ready for competition and works to keep the NASA lab organized.

FRC Build

Led by FRC build head Bobby Tiff and assistant FRC build head Nikhil Desai, the team works to design and build advanced robots to compete in the FIRST robotics competition. In the fall semester, participants will have off-season training on design and all machine tools. In the spring semester, construction of the competition robot will happen. In January and February, the team works to complete a highly functional robot in a six-week period. Build season begins with a "Kickoff" when the team will meet at school to discuss the game as a whole. Six weeks later, on the "ship date", the team will ship the robot away to our first competition. During the competition season, (March-April), select members will be split into groups for pit crew (robot maintenance), drivers (robot operation) and scouts (strategy).

Graphic Design

Led by animation and graphic design head Aaron Johnson, the team creates designs and graphics which are represented on the team 254 website, apparel, etc. The team will also maintain comprehensive team identity standards.

Outreach

Led by PR/Marketing head Kevin Ellis, Team 254 has a long history of working with other teams and the community. To qualify for outreach projects, you must complete a significant amount of outreach beyond the minimum hours necessary to be on the team.

Programming

Led by controls head Eric Bakan, programmers develop software for FRC and VEX robots using C++ and C respectively. The team also oversees development of the Team 254 Simulator and other software released by the team.

Publications

Led by PR/Marketing head Kevin Ellis, members involved in publications will create articles for the Bellarmine community, content for the team 254 website, and regular team newsletters.

Scouting & Strategy

Led by Scouting head Devon White, scouting team is responsible for strategy at every event

that team 254 attends. The team evaluates the competition for strengths and weaknesses and works to develop “pick lists” to help us make intelligent alliance selection decisions.

VEX Build

Led by VEX build head Nikhil Desai and assistant VEX build head Bobby Tifft, individual vex teams work to design and build robots to compete in the VEX robotics competition. Because of its simplicity and hands-on nature, it is especially recommended for all new members. The program makes use of the VEX Robotics kit, teaching students how to work with basic structural designs, gear ratios, power and torque, as well as C programming.

Website

Led by PR/Marketing head Kevin Ellis (and programming and controls head Eric Bakan) the team maintains a website to assist in team public relations, communication and to compete in website competitions in the spring.

Zero Robotics

Led by controls head Eric Bakan, programmers compete in the Zero Robotics SPHERES Challenge, hosted by NASA and MIT. In this event, the team submits a program to autonomously control a simulated SPHERES satellite as it competes against AI submissions from other schools.

Other

If a student has an idea for another project the team can participate in, talk to a team leader.

Team Leadership

Team 254 is led by a leadership team consisting of student leaders and adult mentors. The leadership meets weekly to make team administrative decisions and to discuss the status of major projects. These leaders work to make decisions as a group and all decisions are reached through group agreement. Every member of the leadership team puts in hundreds of hours of work behind the scenes to ensure that the team can flow smoothly and contributes far beyond what is required of him.

Leadership Meetings

The leadership team meets weekly year-round. The meetings are scheduled for Tuesday evenings at 7pm. During the FRC Build season, the meetings are moved to 6pm to accommodate the whole-team status updates. On weeks when school is in session, the student leaders will meet after school on Fridays for a mid-week action item update. If a team leader fails to complete his designated action items, he is eligible to receive a JUG. The team president should email out meeting agendas at least 48 hours ahead of time and the vice president should take meeting minutes during the meeting. After the meeting, the vice president should email the meeting minutes to the leaders the same day of the meeting. All leadership meetings are closed to those not on leadership. If a student has a concern, he may contact any team leader or mentor and it will be addressed at the next meeting. Leaders may miss up to two meetings per semester. If a leader will be missing a meeting, he must inform the other leaders via email at least 24 hours ahead of time. If more than half of the student leaders will be gone, the meeting will be cancelled via email.

Leadership Team Selection

Each year in May, the leadership team will meet to choose the next year's student leaders. Members of the leadership will nominate potential candidates for each position. Any team member may nominate himself or another student for a position by writing a 500-word nomination paragraph. More information will be announced in the spring. The selection process is based on each person's previous leadership experience, his dedication to the team, his particular expertise and his nomination essay. This year's leadership team was unanimously agreed upon by all members of the 2010-2011 leadership.

Leadership Responsibilities & Authority

The team leadership is responsible for ensuring that the team runs smoothly. The leadership understands the importance of communication, action items and dedication. They travel with the team, attend numerous events and help run build sessions. They write the handbook and are willing to be men for others, stepping up and helping others when necessary. The leadership team has the authority to modify any of the policies outlined in this handbook if deemed necessary.

President - Nagy Hakim

The team president is responsible for keeping team unity, making sure the leadership functions as designed, staying in contact with sponsors and being a team spokesperson.

Vice President - Saurabh Sharan

The vice president is responsible for finance, archiving, and submissions.

FRC Build Head & Assistant VEX Build Head - Bobby Tifft

Responsible for organizing FRC build related activities and ensuring students get the most out of the technical aspects of FRC; also an assistant VEX head in charge of building and maintaining the VEX field.

VEX Build Head & Assistant FRC Build Head - Nikhil Desai

Responsible for organizing VEX build related activities and ensuring students get the most out of the technical aspects of VEX; also an assistant FRC head in charge of building and maintaining the FRC field.

Graphic Design & Animation - Aaron Johnson

Responsible for maintaining the team identity through graphics, banners, robot decorations, information flyers, awards; also in charge of the FRC and VEX animations.

Controls - Eric Bakan

Primarily responsible for programming and electronic function of FRC and VEX robots. Also IT manager for the lab network, lead developer for the Team 254 Simulator, and webmaster for the team website.

PR & Marketing - Kevin Ellis

Responsible for awards to other teams, award submissions / presentations at competition, and publications.

Competition - Reiley Weekes

Responsible for preparation for FRC and VEX competition, spirit and organization.

Scouting - Devon White

Responsible for FRC and VEX scouting and scouting preparation.

Contacting the Leadership

To raise any questions or concerns to the leadership, feel free to contact any member of the leadership team.

Member Obligations

All team members are expected to adhere to the following:

Outreach/Service

Community service is at the core of Team 254. Every member is required to participate in a minimum of 12 hours of team-related outreach or service each semester. Members will be informed of outreach opportunities throughout the year. Activities will include external mentoring of First Lego League, VEX, and FRC teams as well as robot demos at Bellarmine and outside.

Projects

Team 254 works very much like a small business with a wide array of projects in different fields to complete. Each member of the team must be involved in robot projects, non-robot projects and workshops. Leaders will track the hours of the participants. Expectations are two hours per week or approximately 35 hours per semester for full credit.

Most of the projects will fall into one of the categories described in the “what we do” section. Anybody is welcome to participate in any project. **No prior experience is necessary.**

Tournament Attendance

Each team member must attend at least four tournaments during the year: two VEX and two FRC. These tournaments must include the Silicon Valley FRC Regional and the Bellarmine VEX Tournament.

Mandatory Events

During the year, everyone is required to attend the following events:

- One VEX Tournament and one FRC Tournament per semester.
- Silicon Valley Regional and the Bellarmine Vex Tournament (these count towards the above)
- FRC Kickoff
- FRC Scrimmage

- Select Mandatory weekly meetings

The team leadership may announce other mandatory events during the year. If you cannot attend a mandatory event, speak with Mrs. Roemer or Mr. Lindemann before the event.

Dates and times will all be on the team calendar.

Team Dues

Due to the high cost of material and other fees associated with robotics each team member is expected to pay an annual fee of \$100. During the fall, each team member's family will be billed by the Bellarmine business office for this fee. Each team member will receive two team t-shirts in the size of his choice and a laser engraved team nametag. If for any reason a student's family is unable to financially meet this requirement, contact Mrs. Roemer as soon as possible.

Grades

To recognize involvement, each member of the team will be receiving a grade on his quarter and semester report cards. For all first time team members, the requirements may be halved for the first semester on the team. All members of the team are committed to remain on the team for the whole semester and may not withdraw once enrolled. Students who do not meet the team obligations listed above will receive failing grades.

Team Meetings (20%)

There are weekly team meetings held at the Andrade Theater in the library on Tuesdays at 2:54pm. Everyone is encouraged to attend as many meetings as possible, but only some meetings will be made mandatory. Mandatory meetings will be given 4 points and regular meetings will be given 1 point. Attending meetings which total 90% or more of the points will be given full credit. Students will be given one week notice of the mandatory meetings.

Example (all figures are fictional): John attended 8 of the 9 mandatory meetings and 5 of the 5 non mandatory meetings. He earned 12 points from the mandatory and 5 points from the non mandatory. John got 37 of the 41 possible points. This gives him a 90% of the meeting points (which is full credit for this category), which will translate to 20 credits towards the 100 credits for the final grade.

Workshops/Projects (20%)

Members will be given credit for working on projects and attending scheduled workshops. Credit will be given for leading, assisting and participating in the workshops as well as working on any approved projects for the team. These projects may include robot design, graphic design, web design, scouting, robot build, programming and other tasks in support of Team 254. Hours will be verified and maintained by team leaders. For full credit, 40 verified hours are required each semester. Each hour counts as 0.5 points towards the final grade. Team members can earn up to 25 points towards the final grade from this category, with the extra 5 points used to offset deficiencies in other areas.

Outreach (20%)

To get 100% in this category, you need to do 12 total hours of service (1 point for each hour). We will count up to 15 hours (with 3 being extra credit). 12 points will be full credit. Each hour of service counts as 1 2/3 credits towards the final grade. Students must turn in timecards, which can be printed out from the team website. Team members can earn up to 25 points towards the final grade from his category.

Tournament Attendance (20%)

In the first semester, you must attend Cal Games and one VEX tournament. In the second semester, you must attend the Bellarmine VEX tournament and the Silicon Valley Regional. Attending additional tournaments does not qualify for extra credit. Each tournament counts as 5 credits towards the final grade.

Reflection Paper/Interview (20%)

Students may choose to reflect on their semester in either a paper or an interview. Students will be given full credit for discussing the following:

- Summarize the project you worked on which had the most impact on the Robotics Team.
- Discuss a positive experience or accomplishment on this project.
- Discuss a difficult challenge on the project and how you overcame it or how you might prevent such challenges in the future.
- How could you improve or what would you like to work on in the future

Interviews must be scheduled by December 1st and reflections due December 5th for the first semester and interviews scheduled by May 11th and reflections due May 14th for the second semester.

Grade Summary

In summary, your grade in Robotics will be calculated by

- Participating in outreach
- Attending meetings (especially mandatory meetings)
- Working on projects and attending workshops
- Attending required tournaments.
- Reflecting on your work for Robotics

You can earn extra credit in the Team Meetings, Projects/Workshops and Outreach categories that can offset deficiencies in other categories. The grading scale is the standard Bellarmine grading scale with your total credits out of 100 being used to calculate your grade percentage.

Detailed Information

Meetings

Whole team meetings are at 2:54pm every Tuesday in Bellarmine's Andrade Theater (except as announced). Certain key meetings will be announced as mandatory and all team members must attend. (see "Mandatory Events" for more information).

Other project groups may have meetings as announced.

For all other meeting times, please consult the team calendar on the team website.

FIRST Robotics Competition (FRC)

The FIRST robotics competition is an advanced competition in which the whole team will come together to build a robot to play a game against other robots. Team 254 does not divide up into sub-teams and anybody can participate in any part of the design or build process with no experience needed.

Build

FRC robots are built during an extremely short time with the bulk of robot construction happening during a 6-week "build season". Build season begins with "kickoff" when our challenge is released. Later in the day, the whole team will come together to strategize. During the build season, the team will meet primarily at the NASA lab to design and build our robot. At the end of the 6-week period on "ship day", the robot is shipped away to our first competition.

Team 254 designs our FRC robots using SolidWorks CAD (computer aided design) software and creates a complete 3D model of our robot before construction. To build the robots, we utilize advanced metalworking equipment including computer controlled and manual mills and lathes to machine custom parts and build a unique robot. Team 254 typically builds two robots, a competition robot and a practice robot. After our competition robot is shipped, the practice robot allows us to keep working up until competition.

Robots are programmed using C++ by the controls team. The team works to develop advanced control algorithms to control the robots.

Competition

Team 254 typically competes at our local Silicon Valley Regional in San Jose, a travel regional within driving distance (possibilities include Las Vegas, Los Angeles, Davis, Fresno

and San Diego) and the FIRST championship in St. Louis. Because Team 254 is a member of the FIRST hall of fame, we automatically qualify for the championship each year.

At competition, the team will break up into a scouting team responsible for strategy, a spirit team responsible for keeping morale high, a pit crew responsible for robot maintenance and a drive team responsible for robot operation.

VEX Robotics Competition (VRC)

For participation in the VEX robotics competition, team members will be split up into teams, designated by leaders. All rookie (first year on team) students must participate in VEX. Each team will be led by a team captain appointed by the whole team leadership. Whole-team leaders cannot be VEX captains.

Veteran students are encouraged to serve as VEX technical advisers if they choose.

Over the summer, there will be no VEX build meetings. Individual VEX teams will be announced at the beginning of the school year and there will be team-wide build/design workshops in the first few months of the year.

Build

VEX builds will occur outside of the FIRST build season (primarily in the first semester). Weekday build sessions will happen Monday, Wednesday and Thursday from 2:50-5:00pm or as announced. Weekend and alternate weekday build sessions will be announced based on teacher and mentor availability. All build sessions must occur either at Bellarmine or the NASA lab and parts may not be taken home, as some students may not be comfortable with build sessions at private homes. If additional build time is needed, VEX captains should talk to the VEX leader.

VEX robots are built with a specialized set of parts which the school owns. All parts used on VEX robots must belong to Team 254. (i.e. you cannot use parts that you purchase) VEX captains can request for specific parts to be purchased and added to the team part inventory, so any specially-needed parts can be acquired. Contact Mr. Lindemann to request parts. Parts will be checked out to teams by a team leader. At the end of the year, all parts must be turned in and teams will be responsible for missing parts. All parts acquired through sponsorship or awards belong to the whole team.

Teams will have design reviews moderated by peers, student leaders or mentors (as appointed by the VEX leader). Preliminary design reviews must happen prior to part checkout and robot construction. Furthermore, design reviews must happen before any major robot changes. Robots should be designed and constructed by the end of the first semester.

Competitions

VEX teams will have the opportunity to compete at a number of tournaments ranging from small local tournaments to large international competitions. Team attendance at tournaments will be reviewed and approved by the team mentors and student leaders. Per Bellarmine regulations, an adult team mentor must be present at any tournament in which Team 254 competes. Team 254 will pay tournament entry fees but students will pay travel.

At competition, a select group of 'drivers' and a 'coach' will operate the robot during matches. Priority for 'driver' and 'coach' positions shall be given to younger team members and appointments must be approved by the VEX leader and assistant VEX leader.

Workshops

In the beginning of the school year, interactive presentations are held to teach team members skills that will be needed throughout the school year. The following presentations will be given:

FRC and VEX Team Basics

This workshop will discuss the basics of the FIRST program, the VEX program and Team 254.

Hand Tools Training

This will consist of a presentation explaining all hand tools used in both the FRC and VEX programs, followed by a hands on demonstration of use for more advanced tools, as well as hands on tool placement in the lab (where everything goes)

CAD Workshops (at least 3)

Team 254 uses CAD (Computer Aided Design) software in the design of our FRC robots. Learning how to use CAD is a long and comprehensive process. Having three hands on

workshops will give all students the opportunity to learn this process and how to apply it. The workshops will build on each other so coming to the first ones is important.

Wiring Workshop

Wiring is an important task in the engineering industry. This workshop will give students the opportunity to learn the basics of wiring and electronics in FRC.

Mechanical Workshop

This workshop will teach the basics of engineering and robot building, applicable to both the FRC and VEX programs. Concepts include gear theory, prototyping, robot parts and implementation, and previous/common designs.

Other workshops may be announced by the leadership team.

Facilities

NASA Ames Robotics Exploration Lab

Team 254's founding sponsor, the NASA Robotics Alliance Project has generously provided Team 254 and Team 1868 with a large workspace at NASA Ames Research Center. Team 254 has an 80% size practice field as well as a small machine shop, workspace, computer lab and meeting space. Any FIRST team is welcome to come in and use our practice field under the supervision of NASA personnel. Ames badges are required for access to the lab. For more information about the lab and badge access, contact Cory McBride.

The lab is located in Building N246, Room 180 in Moffett Field, CA. Directions:

- Approach the first gate on Moffett Blvd (North).
- If picking up badge, go through front gate in RIGHT lane. Inform the guard that you are picking up badge and park in parking lot to right.
- If going to lab, go through the first gate in LEFT lane. Show badge and ID at first gate.
- Take the first left on Arnold Ave.
- Show badge and ID at second gate. Turn right and proceed around Bush Circle.
- After going half way around circle, turn right onto DeFrance Ave. Proceed to Warner Rd. and turn right.

- Park on the right (south) side of Warner Rd. near the "Robotics Alliance" trailer.
- Enter the door closest to the "Robotics Alliance" trailer.

NOTE: The badge office is open during standard weekday business hours only, closing at 6pm each day. If you are coming on a weekend and do not have a badge, you will be put on the afterhours list. Inform the guards at both gates that you are on the list and they will check.

Bellarmino Robotics Lab

Team 254's primary VEX workspace is Room 005 in the O'Donnell Building. Equipped with motors, sensors, structural metal, and electronics, the VEX lab is an invaluable resource that must be used with care. All parts are to be leased out through a team leader to avoid an unfair distribution among VEX teams. The lab is to remain clean at all times with food and beverages only allowed with the approval of an adult team mentor. Any member who wishes to build there must take on the responsibility of cleaning up after every build and respecting the build times for the day. Robots may not be brought home and should only leave the lab with the approval of an adult team mentor.

Safety

Robotics, an activity where students regularly work with sharp metal and dangerous tools, can be very hazardous if proper techniques are not put into place. All members must listen to fellow team members so that they may act safely. Teachers, mentors and NASA personnel always have the final word in any situation where safety is at stake.

Emergencies and Injuries – Procedure

Check – Check the scene. Is it safe? What happened? Who is injured? Is someone there who can help you?

Call – Find an adult mentor. Call an emergency number. If an emergency occurs, the operator will need to know your name, location, telephone number, and description of emergency. NASA Lab: Moffett Field, Building N-246 Room 180. Dial 4-5555 on any NASA phone; Bellarmine Lab: 850 Elm St., San Jose.

Care – After contacting emergency care and adult mentor(s), use the first aid tips and kit to care for the victim. Remember, the best thing you can do for someone who is severely injured is to help get an emergency care professional as fast as possible. If you are at

Bellarmino, the infirmary is in the gym. If you are at NASA, there is a medical center between N-246 and the cafeteria (at the back of the lab, walk out the loading door and turn right down the road about 100 feet in front of you).

Lab Rules for FRC and VEX Lab

1. No student is ever to work without a mentor on site.
2. Any student intending to use any potentially dangerous tools must be trained about how to safely use the tool by an adult mentor AND documentation of this training must be completed before the student will be permitted to use that tool.
3. When finished using a tool, it must be returned to its designated location in the lab.
4. At the end of every work session, all tools and materials must be put away.
5. If a student leaves before a work session is over, he must spend AT LEAST 15 minutes cleaning (or have permission to leave from a student leader or adult mentor).
6. If a power tool malfunctions, it must be reported to a mentor immediately and must be tagged and locked out. Only mentors can lock or unlock tools.
7. Electrical devices of any kind may NEVER be powered by daisy-chaining cords or power strips.
8. Always wear safety glasses when operating or near somebody who is operating power equipment. If you are unsure in a given situation, wear safety glasses.
9. No loose hair or long clothing permitted during the use of power tools.
10. Students must be respectful to everyone (present or not).
11. Horseplay and video games are not tolerated. If work for the day is complete, make sure your ride is coming and work on homework.
12. All students must abide by the guidelines set forth by the Bellarmino Transportation form. If you are unsure of your transportation status, check with Mrs. Roemer
13. All applicable rules of Bellarmino College Preparatory apply at the NASA lab or any place where robotics work is being done.

Travel & Competition

Participation

Most competitions outside of the local San Jose area require travel. Travel will not be fully funded by the team and will require payment by the student. If a student decides to back down after making the commitment, he may only be reimbursed if another student fills his spot. If payment is an issue, speak with Mrs. Roemer. Students will inform Mrs. Roemer that

they are interested in travel and the team leadership will determine if they have met the requirements to travel.

Team members are responsible for their actions during competition. Always remember that an individual's behavior reflects on the team, on our sponsors, on Bellarmine College Preparatory, and on himself. Whether you are at the competition facility, at an amusement park, at a hotel, or at a restaurant, you should remember that you are an integral part of Team 254, and your behavior should reflect the respect you have for yourself, for the team, and for others. Those who are not members of Team 254 but are cheering for or representing the team in any way must adhere to these guidelines as well. In other words, if your friend from school comes to a regional separately from the team, but is representing the team in any way or form, make sure they represent the team positively.

Behavior that is deemed below the standards of Team 254 may result in punishment by an adult team leader. More severe infractions at a competition may result in an immediate flight or bus trip home at the expense of the team member, and/or suspension or expulsion from the team (at the discretion of adult team leaders).

Transportation

Non-Regional Events

Many team events, including FRC build sessions, will not occur at Bellarmine. Transportation may be provided to these events, often in the form of rides from parents.

NASA LAB

During FRC Build Season, rides will be arranged for most days to the NASA lab. These rides will meet outside of Bellarmine Room 117C. Sign-up for the rides will be on a weekly basis and will be announced. If spots are available as a ride is preparing to leave, rides will be given on a first-come, first-serve basis.

Silicon Valley Regional (FRC)

On Friday of the competition, a school bus will bring students to the San Jose State University event center, leaving school early in the morning. Depending on the decided departure time, students who choose to come on Friday will be missing all if not most of their classes that day.

Long-Distance Tournaments

Bellarmino College Prep will arrange all transportation. Students will pay Bellarmino by check. All students **MUST** travel with the team; they are not allowed to travel with their parents separately from the team. In addition, if a student decides not to go after they have committed, they may not receive a refund on their payment. (further details announced to traveling members before each event).

School Absence

Many team events will require that students miss school. It is a students' responsibility to inform his teachers of an absence ahead of time, arrange for completion of missed work, and fill out a planned absence form (available in the Dean's office). Return this form to Mrs. Roemer before the absence (DO NOT return to the Dean's office).

Identity

Team 254 is well known throughout the robotics community and has a very distinct identity and color scheme associated with it.

Uniform

The uniform of Team 254 consists of a current team T-Shirt and a team nametag. Shirts will be distributed during the school year and should be worn on all days of competition. Old team T-shirts are acceptable on Thursdays (practice days) of FRC Competitions. Current T-shirts must be won during Friday and Saturday of an in-season FIRST Competition and on all days of a VEX competition. Uniforms must be worn at all off-season events and robot demonstrations. Uniform wearing is recommended on the school day before and after a robotics competition, to raise awareness at school. For more information, see the Team Identity Standards, available on the team website.

Identity Standards

Team 254 has developed a set of comprehensive identity standards to help maintain and preserve our strong team identity. For more information, see the identity standards, posted on the team website. The policies outlined in the identity standards are binding and must be followed for all team communication.

Photography and Media

Team 254 works hard to document our activities and all students must be willing to be photographed and appear in team-related publications.

Behavior

Team 254 expects that all students behave maturely and professionally at all times. Students whose behavior is deemed to be below the standards of Team 254 will be punished appropriately by an adult team mentor. It is important that all team members remember that when online or in person they are representing Team 254 and their actions must not reflect poorly upon the team. Team members should treat members of our team and other team with kindness and respect at all times.

Written Documents on Behalf of the Team

Any written documents put into writing on behalf of the team must be approved by the team leadership. Written award submissions are included and may not be submitted without the explicit approval of the leadership team.

Sponsors

Team 254 is only possible because of the generosity of our sponsors.

Fundraising and Sponsorship Solicitation

Bellarmino College Preparatory has asked that Team 254 students NOT solicit sponsorship or fundraise. However, goods and services, as well as unsolicited donations are always welcome as donations to the team. A sponsor may receive their name on team apparel, robots, banner, and/or website, and/or their name announced with the team name at competition. The team is always looking for many types of goods and services that could be donated including but not limited to: food, machining, metal, fasteners, VEX parts, T-shirt printing, photocopying, computers, metal finishing, plastic, banners, and software.

Communication

All students are required to have an active e-mail address that they check often. It is suggested that you monitor your email at least once daily in accordance with Bellarmine policy. All other messages will be communicated to members during team meetings or posted on the team blog.

Team Website

The team website is located at <http://team254.com>. To create an account, scroll to the bottom of the page, click "Register," and follow the instructions on-screen. Adjacent to the "Register" button is a link to log in and out of the website. To edit your profile, including your name and password, click "Team Members" at the top of the website and click the "Change Password" button at the bottom.

Email Group

All students must be registered in the Team Email Group (<http://groups.google.com/group/team254>). It is recommended that parents also register themselves in the group in order to stay informed. To join, send an email to team254+subscribe@googlegroups.com

Team Blog

The team maintains a blog on our team website. Information is posted frequently on everything from build progress to meeting minutes.

Contact

Student Leaders

- President: Nagy Hakim
- Vice President: Saurabh Sharan
- FRC Build: Bobby Tiff
- VEX Build: Nikhil Desai
- Animation/Graphic Design: Aaron Johnson
- PR/Marketing: Kevin Ellis
- Controls: Eric Bakan

- Competition: Reiley Weekes
- Scouting: Devon White

Mentors

- Ann Roemer – Co-Head Teacher - aroemer@bcp.org
- Brad Lindemann – Co-Head Teacher - blindemann@bcp.org
- Jose Molina - VEX Moderator - jmolina@bcp.org
- Travis Covington - Mechanical Mentor - traviscovington@gmail.com
- McKenna Walsh - Nontechnical Mentor - mckenna@morefaster.com
- Cory McBride - Mechanical Mentor - cbmcbride@gmail.com
- EJ Sabathia - Mechanical Mentor - ej.sabathia@gmail.com

Authority of the Handbook

The rules and policies set forth in this handbook are binding and must be followed by all team members. The handbook may contain appendices including the Team Identity Standards; these documents are binding as well. The team leadership has the authority to modify the handbook at any time; the team will be notified of any modifications.

Student Contract

By signing below I acknowledge and understand all points listed below:

- I have read the handbook describing Robotics Team 254 and agree to comply with the policies outlined within.
- Participation in the program requires attendance at meetings and I have received a tentative schedule of those meetings.
- I will be responsible to arrange my own transportation to robotics events.
- The equipment used during construction of the robot can cause serious harm injury if not used correctly. Students are not permitted to use any piece of equipment until they have been instructed on its safe use and are not permitted to use any piece of power equipment without adult supervision.
- I will only ride a car driven by an adult mentor, a Bellarmine-approved parent or myself to any robotics function if my parents have signed the Bellarmine liability release/consent form.
- I agree and consent to allow my photographs, name or comments to appear in media related to Team 254
- I understand that violation of any of the policies above is punishable by the leadership team up to and including dismissal from the team.

Student Name

Bellarmino Student ID #

Email

Student Signature

Parent Signature