



2026–27

Beckman Robotics (2496)

New Member Application

Mission Statement

As the world grows increasingly complex, the need for individuals equipped with the knowledge and skills to tackle tough problems by gathering information, evaluating that information, and presenting effective solutions continues to increase. Still, relatively few students are proficient in the core subjects of science, technology, engineering, and mathematics (STEM) and even fewer express interest in pursuing these fields beyond high school. Increasingly, educators and students alike seek hands-on, sustainable, and cost-effective approaches to help engage young people and maintain their interest in STEM through elementary school, middle school, high school, and beyond. The mission and goal of the Beckman Robotics Team is to provide for team members an experience where STEM and the engineering design process are utilized to problem solve while designing a robot intended to perform in practices, scrimmages, and competitions. The Beckman Robotics Team is an inclusive group that shares responsibilities and roles in an environment that is unbiased, nonjudgmental, open to all ideas, abides by rules and instructions, respects materials and supplies, and respects all other team members and coaches within and outside of Beckman High School. A Beckman Team Member is an individual that is committed to organization, attendance, and acceptance all while placing the importance of the team ahead of themselves and demonstrates this by following a strict code of conduct supported by their behavior and attitude. The Beckman Robotics Team is a group of students working toward a common goal with the intent of experiencing collaboration, following engineering practices, problem solving, and learning. These ideas will always be the foundation and in the forefront of the team with winning as an additional benefit that is accomplished by hard work and putting the team before the individual.

Getting Started

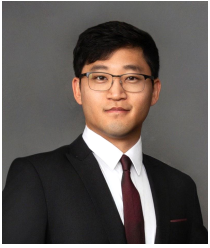
Application Process

1. Application is **Due [Friday] March 27th, 2026 by 4:00 Pm** (Submit at front office at Beckman High)
2. Interviews: **DATE TBD 4:00 Pm–7:00 Pm** at Beckman High Engineering Building (#804)
If selected for an interview, you will be given further instructions and assigned a time.
3. **Beckman High School 8th Grade Parent Night (Date: March 24th | Time: 5:15 PM – 8:00 PM)**
We invite you to partner with Beckman High School in support of your child's educational journey. Please join us for our 8th Grade Parent Night to learn more about our campus community and the award winning Beckman Robotics program. We will provide an in depth overview of our competitive VEX Robotics teams, including details on program structure, time commitments, and the application process for incoming freshmen interested in design, driving, fabrication, and programming.

IMPORTANT: APPLICATION GUIDELINES & ACADEMIC INTEGRITY

1. **Handwritten Requirement:** This entire application **MUST** be handwritten. To ensure that your responses can be properly reviewed and archived, you are required to use a dark **BLUE OR BLACK PEN**.
2. **Legibility Matters:** Your application is a reflection of your attention to detail. If your handwriting is not legible, we cannot accurately evaluate your skills or your passion for the program. Please take your time and write clearly. If the coach cannot read your responses, your application will not be accepted.
3. **Policy on Usage of Artificial Intelligence (AI):** The Beckman Robotics Team values original thought and *authentic voice* over perfect responses. The use of AI tools (such as ChatGPT, Gemini, etc.) to generate responses is strictly prohibited. All responses are subject to be monitored for AI usage. If a response is suspected of being AI-generated, it will be processed through detection software. **If AI usage is detected, your application will be immediately disqualified.**
4. **Quality Over Speed:** Do not rush this process. We are looking for members who show a high level of intentionality and care. Treat this application as your first "assignment" for the Robotics course.

What to Expect @ Beckman Robotics



Coach: Mr. You Jun (Koen), Han

Classroom: #204 (Algebra 1), #804 (Robotics)

E-mail Addresses:

- ❖ Primary Communication: yhan@tustin.k12.ca.us
- ❖ Google Classroom/ Drive: yhan@mytusd.org
- ❖ Discord may be used to communicate with/ among team members on our official server

Teams

- ❖ 6 Teams of 8 Members (48 Students)

Practices & Schedule

- ❖ Standard Hours: Monday–Friday | 2:30 PM – 5:30 PM (Tentative)
 - 6th Period Practice Time: 2:33 Pm – 4:30 Pm
 - 7th Period Practice Time: 3:37 – 5:30 Pm
- ❖ Adjustments: Practice times may be extended or shortened based on competition dates and coach's availability

Competitions & Events

- ❖ # of Competitions: Approximately **7** competitions per team
 - This excludes Extravaganza, States, and Worlds
 - Number of events is subject to change based on mid-season fundraising outcomes
- ❖ Signature Events: One potential Signature Event (counts as 2 competitions)
- ❖ BHS Competition: We are aiming to host a competition this year on Halloween
- ❖ Scrimmages: TBD

Academic Integration & Attendance

- ❖ Beckman Robotics is now an officially registered class. Consequently:
 - **Enrollment:** All students will be registered for either a 6th or 7th Period class. This is an additional class and does not take up a spot from required courses.
 - **Grading:** Students will receive a letter grade on Aeries based on performance, assignments, and participation.
 - **Daily Attendance:** Students must attend their respective period; failure to do so will result in a marked absence.
 - **Competition Attendance:** Members are expected to attend all competitions for which their team is registered. Every Robotics member must either participate or volunteer at TUSD Extravaganza.
 - **Excused Absences:** Students with other school-related extracurricular commitments *must communicate with the coach in advance for leniency*. Personal outside activities (e.g., tutoring, music lessons, social events) do not qualify as excused absences.

Professional Expectations

- ❖ **Conduct:** Absolute respect is required for all team members, equipment, coaches, administration, parents, and referees.
- ❖ **Property:** All equipment, tools, and robots must remain at Beckman unless explicitly approved by the Coach.
- ❖ **Minimum Participation:** While the coach understands emergencies arise, all students are required to fulfill a minimum of 5 practice hours per week to maintain a high level of participation.
- ❖ **Consequences:** Failure to meet the 5 hour minimum may result in a lower participation grade and potential dismissal or removal from the program.

Section 1: Candidate Information

Print/ Glue a portrait of yourself in this area. This is purely to help Mr. Han put a face to the name during the evaluation and interview process.	1. First Name:	2. Last Name:
	3. Grade/ Year for 2026–27 ☐ 9th ☐ 10th ☐ 11th ☐ 12th	4. Student ID#:
	5. Student TUSD Email Address:	
Name of school you attended during the 2025–2026 academic year:		Current Cumulative GPA:

* Note: Robotics requires significant time away from other classes for competitions. Maintaining academic eligibility is a requirement for team membership.

Section 2: Interests & Experience

Your previous robotics experiences are valued but not mandatory. Since you are applying as a new member, having previous robotics work knowledge is beneficial but not the determining factor as to you making the team or not. We are interested in any experience you have had that might be useful on a robotics team and how dedicated you are to the program. Those experiences can come from anything you think is worthy of sharing and can show how it could support the mission statement at the beginning of this application. To get a better understanding of your interests and experience, please answer the following questions.

You are not required to answer all of the questions. If any question does not apply to you, write N/A

1. Do you have any previous experience being in Any Competitive Robotics Team? (First, IQ, V5)	
☐ Yes, I have experience.	☐ No, I don't have any experience.
a. ☐ Private Team ☐ School Team Program Name/ Team Number & Letter(s): ex) Vex V5 Beckman Robotics 2496X	a. Were you ever a part of any STEM/ Robotics/ Engineering Program? ☐ Yes ☐ No If you selected yes, what is the name of the program you were a part of? _____
b. Years of Experience: _____	b. Years of Experience: _____
c. Primary role(s) you took on (List Top 3) • • •	c. What did you do in this program? _____ _____

Section 3: Expectations of Your Role as a Team Member

It is the expectation of a Beckman Robotics Team Member to be an all-around knowledgeable and experienced team member. There are multiple roles that all members of the team are responsible for being experienced with and have time where they practiced or utilized that role throughout the entire season. All team members will be expected to equally practice and understand the basics of each role and will be expected to rotate and share those roles during designated open lab/practice sessions. By all team members understanding all functions of the team and robot and being equally responsible for the work that is going into that development, team roles and responsibilities will be fair and balanced. Review the core VEX roles below and select your primary, secondary, and additional support preferences.

Driver	Builder	Programmer	Notebooker
Responsible for operating the robot during matches. Requires high-pressure decision-making, fast reflexes, hours of practice.	Responsible for the physical assembly, structural integrity, and mechanical subsystems of the robot. Requires knowledge of tool safety and hardware.	Responsible for the robot's logic, including driver control programs and autonomous routines using C++.	Responsible for the Engineering Notebook. This involves documenting every design decision, organizing equal participation in creation of the Notebook, and neatly organizing data to qualify for judged awards.

* Note: Roles such as scout, strategist, and drive-team support are shared by all team members and expected to contribute throughout the season.

Primary Role (The role you are most confident in):			Secondary Role (Your strongest backup skill):			Additional Support Role (Scout, Drive Coach, Strategist, etc.):		

4. In the space below, explain why you deserve your **Primary and Secondary** role. Provide specific evidence of your experience (e.g., specific mechanisms you've built, languages you've coded in, or your experience with documentation) and explain what makes you the best fit for this position.

[illegible]

Beckman Robotics prioritizes group success over individual achievement. All decisions regarding the robot, competitions, and strategy must be reached through **collective agreement**; no member shall ever be excluded. To ensure your voice is heard, daily attendance and active participation is crucial. **Every member is personally responsible for ensuring their teammates are fully involved in all work.** We practice and compete as one unit where blame is never excused and individual skill is not the sole cause of success. Our results depend entirely on the combined and balanced efforts of the whole team.

5. Explain your philosophy on the ideal teammate and how you plan to embody that role this year. How will your specific work ethic and attitude help your team reach its full potential, and how will you hold yourself accountable to the high standards of the Beckman Robotics program?

6. What would you consider to be your biggest weakness in terms of collaborating and contributing to a group project or team? What are your ways to address this weakness?

[illegible]

I would work well with these individuals	I would prefer not to...
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____

Section 4: The Engineering Design Process

At Beckman Robotics, we prioritize the Engineering Design Process throughout the design, construction, and programming of our robots.



Prompt:

A robotics lab is constantly filled with tools, spare parts, and various hardware. After a long competition season, the team's miscellaneous hardware box has become disorganized with hundreds of screws of different lengths mixed together. Manually sorting these screws is inefficient and time consuming. You are challenged to apply the Engineering Design Process to create a solution that organizes this hardware more effectively.

The Task: You will be designing a motor/ gravity powered machine to sort a bucket of VEX #8-32 star screws with 13 varying sizes from 0.25" to 2.5".

Guidelines:

- Your machine can be built with **any parts/ tools/ equipment** in a typical vex robotics shop.
- 3D-Printed parts and motors may be used.
- Your machine must be entirely self-powered with a single switch to activate the machine. This means that you cannot touch the machine or the screws during operation.
- Your machine must be a "desk-top" machine, meaning it should be able to be transported by hand.
- Your machine must sort the screws into 13 separate cups/ bins.
- I've done my fair amount of research in this subject. A simple 3D Printed Slide and Drop mechanism is not recommended. I've tested it, and it rarely works.

The Engineering Design Process (EDP):

The Engineering Design Process is a structured cycle used to develop functional solutions to complex challenges. For this application, you must demonstrate your ability to plan and document your engineering choices. Please follow the steps below:

1. Define the Problem

- Establish a clear Design Brief. Your documentation must identify the core problem to be solved and explicitly list every criterion and constraint provided in the prompt.

2. Generate Concepts

- Brainstorm multiple features and mechanisms that could address the problem. Use rough sketches or CAD models to visualize different ideas. You may include a **Decision Matrix** to compare these concepts and objectively select the best features for your design.

3. Develop a Solution

- Provide a high quality blueprint of the design you selected. This includes detailed, labeled sketches/ CAD and a thorough written description of how the machine functions. Your solution should be clear enough for another engineer to understand exactly how it would be built.

4. – 6. Implementation

- The final stages of the process include 4. Construct and Test, 5. Evaluate Solution, and 6. Present Solution. While these are vital to the full engineering cycle, you are only required to document the first three steps for this written application.

Answering the Prompt:

- ❖ **Please ATTACH YOUR PRODUCT TO THIS PROMPT AT THE BACK OF THE APPLICATION**
- ❖ You may use Page 14 & 15 to present your product to this prompt.
- ❖ This prompt is designed to be vague with limited directions to gauge your creativity, problem solving, independence, and presentation skills.
- ❖ You are free to present your solution in any form (writing, drawing, etc.)
- ❖ You are limited to one 8.5 by 11 inch printer sheet of paper (front and back)
- ❖ Submissions may be hand drawn, handwritten, or digitally printed.
- ❖ ***** YOU MUST CITE ANY OUTSIDE SOURCES/ INSPIRATIONS YOU FIND ONLINE*****

Section 5: Schedule and Logistics

To ensure team success, all members must commit to the required practice times. Review the expectations below and provide your current schedule.

Commitment Policy

- **Minimum Requirement:** All students must complete a minimum of 5 practice hours per week.
- **Attendance:** Students must attend their assigned 6th or 7th period. Missing class results in an absence on Aeries.
- **Excused Absences:** If you must miss practice, **you must communicate with Mr. Han in advance.** While I may offer leniency as the season progresses, initial consistency is vital.
- **Make up Hours:** The Robotics Lab is open Monday through Friday until 5:30 PM. Missed time can be recovered by staying for extended practice on other days within the same week.
- **Grading:** Failure to meet the 5 hour weekly requirement will directly lower your participation grade and may lead to dismissal from the program.
- **Policy on On-Campus Activities:** School-related activities (such as sports, ASB, or club meetings) may be considered for excused absences; however, they **must be communicated to and approved** by Mr. Han in advance. Students are still expected to hit their 5-hour weekly minimum by utilizing make-up hours in the lab before or after these activities.
- **Policy on Outside Activities:** Personal outside curricular activities (such as tutoring, music lessons, or social events) are not excusable absences outside of your 6th or 7th period times.

Extracurricular Commitments

List all school-related and outside activities you are involved in (such as Sports, ASB, Clubs, Piano, or Tutoring). It is the applicant's responsibility to identify their upcoming activities and the schedules associated with them. If you do not know the exact practice schedule for a certain activity, you must email the coach or teacher to find out as much as possible regarding next year's schedule. If specifics are still unavailable, please provide your best possible estimate.

Activity (ex. Golf Lesson)	School / Outside (Circle one)	Day(s) of the Week: (Circle all that applies)	Time Frame: (ex. 3:30Pm – 5:00Pm)	Duration (Months): (Aug 8th – Feb14th)	Will this conflict with Robotics practice?
	School / Outside	M / T / W / Th / F / Sa / Su			Yes / No / Unsure
	School / Outside	M / T / W / Th / F / Sa / Su			Yes / No / Unsure
	School / Outside	M / T / W / Th / F / Sa / Su			Yes / No / Unsure
	School / Outside	M / T / W / Th / F / Sa / Su			Yes / No / Unsure
	School / Outside	M / T / W / Th / F / Sa / Su			Yes / No / Unsure
	School / Outside	M / T / W / Th / F / Sa / Su			Yes / No / Unsure
	School / Outside	M / T / W / Th / F / Sa / Su			Yes / No / Unsure
	School / Outside	M / T / W / Th / F / Sa / Su			Yes / No / Unsure

Commitment Verification

Are you able to consistently meet the 5-hour weekly practice minimum despite your other extracurricular commitments? ☐ YES ☐ NO	Do you understand and accept that personal commitments (such as tutoring, music lessons, or social events) do not qualify as excused absences? ☐ YES ☐ NO	In the event of an unavoidable conflict, do you agree to notify Mr. Han of your absence at the earliest possible opportunity? ☐ YES ☐ NO	Do you acknowledge that failure to meet attendance requirements will result in a lower participation grade and potential dismissal from the program? ☐ YES ☐ NO
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Section 6: Cleaning/ Organization Commitment

The Engineering Building and Robotics Lab are shared professional environments. To maintain a productive workspace, it is the collective responsibility of every program member to ensure the facility is kept in top condition. Negligence in this area creates an undue burden on the staff and compromises the safety and efficiency of the entire team.

1. Daily Operational Standards

- a. **Inventory Control:** All robot batteries, tool batteries, and air pumps must be checked out and returned to their designated charging or storage stations at the end of every session.
- b. **Tool Management:** Tools must be checked out and returned to their exact original location immediately after use. No tools should be left on workbenches or the practice fields.
- c. **Robot Stowage:** Robots must be properly parked and stowed in designated protected parking spaces.
- d. **Shared Property Rule:** Any tools or robot parts left unsecured or outside of protected storage are considered "community property." These items may be repurposed by other team members or confiscated by Mr. Han at any time.

2. Mandatory Cleaning Service

- a. **Cleaning Grade:** Each member is responsible for volunteering their time to clean and organize the lab. A part of your grade will be "Cleaning Participation"
- b. **Tracking:** To ensure cleaning responsibilities are shared equally, Mr. Han will track all organization tasks and time contributions for every team member.
- c. **Priority Cleaning:** If a member falls behind on their volunteering commitment, they may be pulled from their current task at any time to perform cleaning duties.

3. Enforcement & "Lock-Up" Policy

The cleanliness of the lab is a prerequisite for team progress. ***At any given time, the entire program's robots may be "Locked-Up" if the following requirements are not met:**

- a. **Field Integrity:** Practice fields must be 100% free of debris, scrap metal, and loose hardware.
- b. **Floor Safety:** All walking paths must be clear of bags, parts, and wires.
- c. **Charging Safety:** All batteries must be correctly plugged in and not left sitting on flammable surfaces.
- d. **Hardware Organization:** All miscellaneous hardware must be sorted into their correct bins, not left in mixed piles.
- e. **Work Area Cleanliness:** All workstations must be wiped down and cleared of non-essential materials at the end of each period.

Workspace Accountability Agreement

I acknowledge that a messy lab is a sign of a disorganized team. I agree to uphold these standards to ensure the safety and success of Beckman Robotics teams. I understand that my robot may be locked up and rendered inaccessible if I or my teammates fail to respect the workspace.

Student Signature: _____ Date: _____

Section 7: Dismissal and Withdrawal Policy

Membership in Beckman Robotics is a privilege that requires consistent adherence to our standards of conduct, safety, and participation. Failure to uphold the commitments outlined in this application may result in removal from the program.

❖ Grounds for Dismissal

Students may be dropped from the roster for reasons including, but not limited to:

- I. Repeated failure to meet the 5-hour weekly practice minimum.
- II. Safety violations or reckless use of tools and equipment.
- III. Consistent neglect of team efforts, cleaning, and organization responsibilities.
- IV. Academic ineligibility or behavioral issues on campus.
- V. Failure to demonstrate the TRUBLU characteristics of teamwork and respect.

❖ Disciplinary Process

Except in cases of severe safety or behavioral violations (which may result in immediate removal), the following progressive steps will be taken:

1. **Verbal Warning:** Mr. Han will meet with the student to discuss the specific issue and establish a timeline for improvement.
2. **Written Warning:** A formal notice will be issued to the student. This document requires a signature from a parent or guardian to ensure all parties are aware of the risk of dismissal.
3. **Formal Review Meeting:** A mandatory meeting will be held with the student, parent/guardian, and a school administrator to determine the student's future in the program.
4. **Final Dismissal:** The student is officially removed from the program and the roster.

❖ Financial Policy Regarding Withdrawal or Dismissal

Beckman Robotics operates based on seasonal budgets and advanced procurement of equipment and registration fees.

- Non-Refundable Policy: In the event that a student voluntarily withdraws from the program or is dropped by the coach due to the disciplinary steps listed above, all donations, parts, and contributions made to the team or the robotics program are strictly non-refundable. These resources are immediately allocated toward team registration, equipment, and seasonal overhead.

Policy Acknowledgement & Dismissal Agreement

I acknowledge that membership in Beckman Robotics is a privilege and requires my full commitment to the team's standards of conduct, safety, and participation. I have read and understood the four-step disciplinary process and the grounds for dismissal, including the 5-hour weekly minimum and lab maintenance.

Furthermore, I understand and accept that in the event of my withdrawal or dismissal from the program, all financial donations, hardware, and contributions are strictly non-refundable and remain the property of the Beckman Robotics program.

Student Signature: _____ Date: _____

Section 8: Recommendations

Please ask 3 teachers/ coaches to provide their signatures below to recommend you for the Beckman Robotics Team. Their signature indicates that they believe you possess the dedication, work ethic, reliability, and teamwork skills necessary for this program.

Teachers/ Coaches: By signing below, you acknowledge that this student is a strong candidate for the Beckman Robotics 2026–2027 season. You are verifying that the student demonstrates the character, integrity, and work ethic required to represent Beckman Robotics and uphold the TRUBLU characteristics. Please note: Mr. Han may contact you for further description or feedback regarding this student’s performance and character.

Recommender Name: Relationship with student: Signature: Date: / / 2026	Recommender Name: Relationship with student: Signature: Date: / / 2026	Recommender Name: Relationship with student: Signature: Date: / / 2026
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Section 9: Additional Information

Please use the space provided below to share any final statements, unique skills, or additional information you would like the coach to consider regarding your application. This may include specific technical expertise, previous leadership experience, or any other relevant details that were not captured in the previous sections.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.



2026-27

Beckman Robotics (2496)

New Member Application

Section 10: Parent/ Guardian Final Acknowledgement

By signing below, I acknowledge that I am supporting my child's application for the Beckman Robotics Program. I understand that if accepted, this program requires a significant and consistent time commitment extending beyond the standard school day. I recognize my student is joining a competitive team environment where their presence is vital, and I commit to supporting their adherence to all mandatory practice hours and competition schedules. I understand that the season involves numerous weekend commitments for local competitions. Furthermore, I acknowledge that teams may travel to out of state locations for Signature Events and potentially to the World Championship, requiring additional time and coordination. I have reviewed the policies regarding attendance, facility stewardship, and the disciplinary process, and I understand that participation is contingent upon maintaining these standards.

I agree that my student will act as an inclusive team member, following all coaching instructions and resolving conflicts professionally. I will strictly respect all decisions made by the coaching staff on the team's behalf without negotiation or debate. I explicitly understand that Beckman Robotics is a student centered program designed to foster independent problem solving. Parents and guardians cannot directly influence team or program decisions, including robot design, strategy, or roster placements. I acknowledge that failure to uphold these behavioral and time commitments or a failure to respect the leadership's direction may result in removal from the program. I also recognize that the success of this program relies on parental support through potential financial donations and essential volunteer service. I understand that the program has a consistent need for parental assistance and that I may be called upon to serve as a chaperone, driver, event judge, or volunteer in other capacities as needed throughout the season to ensure the team can function and compete.

Student Full Name: _____	Parent/ Guardian Full Name: _____
Student Signature: X _____ Date: ____/____/ 2026	Parent/ Guardian Signature: X _____ Date: ____/____/ 2026

*** Beckman High School 8th Grade Parent Night (Date: March 24th | Time: 5:15 PM – 8:00 PM)**

We invite you to partner with Beckman High School in support of your child's educational journey. Please join us for our 8th Grade Parent Night to learn more about our campus community and the award winning Beckman Robotics program. We will provide an in depth overview of our competitive VEX Robotics teams, including details on program structure, time commitments, and the application process for incoming freshmen interested in design, driving, fabrication, and programming.

If you have any questions regarding this application, please feel free to email me at: yhan@tustin.k12.ca.us
I will try my best to get to all of the questions before the application due date.