

THE WALLACE DYNASTY

CVHS' FIRST Robotics Team

Est. 2019



☎ 661-319-1533

🌐 www.team8045.com

📍 Castro Valley High School

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Team Overview

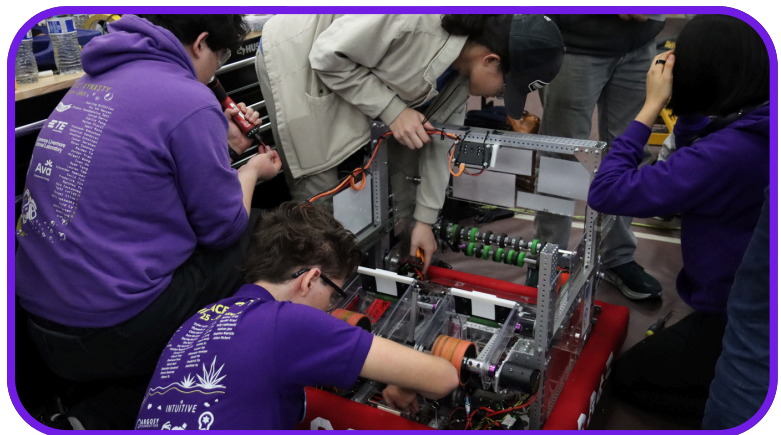
WHAT IS FRC?

The First Robotics Competition, or FRC, is an international high school robotics competition founded in 1989 with thousands of teams around the world hosted by FIRST (For the Inspiration and Recognition of Science and Technology), a 501(c)(3) non-profit organization based out of Manchester, NH.

In FRC, students learn the ins and outs of running a business through budgeting, teamwork, and project management. Teams of students are challenged with raising and managing funds, and designing, building, and programming a robot to complete a set of tasks within a 2 month time period before competing in regional competitions. There, students meet with other teams, where they compete for an opportunity to attend the championship competition and maybe make some lifelong friends and mentors along the way.

WHO ARE WE?

We are FRC Team 8045: The Wallace Dynasty, a community robotics team founded in 2019 based out of Castro Valley High School in the San Francisco East Bay Area. We are divided into a Build (Machining and Assembly), Design, Programming, Electronics, and Marketing and Outreach team, and focus on teaching real and applicable hard and soft skills to interested high school students in fields like Engineering, Graphic Design, Physics, Business, and more.





Impact / Outreach

- 100% of Alumni agreed that FRC had an impact on their interest in Engineering 89% rated it as positive or very positive experience and 11% rated it as neutral experience 78% of members were inspired by Robotics to join the Engineering program 60% of Alumni went on to study Engineering, and 40% went on to study Physics or Applied Mathematics 100% of Members agree that FRC taught them skills they didn't have before, including skills like teamwork, project management, and machining.

Hosted community STEM events, including Girl Scouts robotics camps and classes, Participated in elementary school STEM nights where we showcase our robot and answer questions to inspire elementary schoolers about STEM Introducing members to guest speakers and mentors giving them a chance to learn about higher level topics and real workplace skills and form connections Hosting lower division robotics competitions for elementary-middle school



WE CREATE OPPORTUNITIES FOR STUDENTS TO DEVELOP SKILLS LIKE:

Machining/Manufacturing CNC Operation
Parametric Modeling Design and GD&T
Assembly Programming and Control
theory Electrical Engineering Teamwork
and Leadership Project Management
Marketing, fundraising, and grant writing
Prototyping and iterative design
Mathematical modeling and physics
including topics like basic Engineering
mechanics and kinematics



Future Action Plan (Implementation Plan)

Over the course of the last few years that we've been a Club and FRC team we've taken it upon ourselves to improve us and the next generation of STEM students as much as possible within our club.

We've reorganized the way we operate during both the on and off season. For example during the offseason we've implemented a training program for all of the different subteams to ensure that we have the knowledge needed to do well during competition

We've also taken it upon ourselves to reorganize our subteams combining our previous "Build" and "Design" subteams into one "Mechanical" subteam to promote communication amongst each other.

Future Goals:

We have a multitude of future goals that we want to achieve in order to help improve our club, including but not limited to:

- Increasing Future Training
- Strengthening our use of Social Media
- Improving Communication among Subteams & Club/Team Officers
- Improving/Expanding Outreach and Events
- Improve Club Member Retention





Team Budget

Budgeting:

Every year we try to manage our finances appropriately in order to save money and not spend it on needless expenses. As a result of this every year we take time to budget all of our income and expenses. By budgeting in this way we can make sure that we spend money on essentials and are aware of how much we are permitted to spend each year for expenses like motors, custom parts, or gear boxes.

Students purchase their own t-shirt, uniform as part of the annual dues to be a part of our club.

	ACTUAL								
Revenue	Type	Name	Notes	Amount	Percentage (Subtotal)	Percentage (Total)	Percentage (Subtotal/Total)	Subtotal	Total
	GRANTS & SPONSORSHIPS	Remaining Budget	This needs to be updated with the remaining \$\$\$ after 2024-25	\$3,000.00	23%	23%	100%	\$13,300	\$13,300
		TE Connectivity		\$2,000.00	15%	15%			
		Argosy	Unrestricted	\$1,650.00	12%	12%			
		PTSA		\$500.00	4%	4%			
		Intuitive		\$750.00	6%	0%			
		PG&E (FIRST NorCal)		\$500.00	4%	0%			
		Boeing	ONLY FOR Registration	\$3,000.00	23%	0%			
		Warp	Added logo to website	\$1,000.00	8%	0%			
		Costco (No LOGO)		\$150.00	1%	0%			
		CVEF Innovation		\$750.00	6%	0%			
					0%	0%			
					0%	0%			
	FUNDRAISING				#DIV/0!	0%	#DIV/0!	\$0.00	
					#DIV/0!	0%			
	DONATION				#DIV/0!	0%	#DIV/0!	\$0.00	
				#DIV/0!	0%				
EXPENSES	Section	Name	Notes	Cost	Percentage (Subtotal)	Percentage (Total)	Percentage (Subtotal/Total)	Subtotal	Total
	Art & Merch	T-Shirts	each student bought as dues	\$0.00	0%	0%	3%	\$350	\$12,350.00
		Banner and Pit Decor	already have	\$0.00	0%	0%			
		Stickers		\$150.00	43%	1%			
		Miscellaneous Merch		\$200.00	57%	2%			
	Pit	Frame			0%	0%	4%	\$500.00	
		Storage		\$0.00	0%	0%			
		Cart		\$0.00	0%	0%			
		Workspaces			0%	0%			
		Miscellaneous Pit		\$500.00	100%	4%			
	Robot	metal/wood	aluminum bars and bracket material	\$500.00	11%	4%	36%	\$4,500	
		motors	motors and swerve drive	\$3,000.00	67%	24%			
		sensors		\$500.00	11%	4%			
		gear boxes	and shafts and misc pieces to assemble	\$500.00	11%	4%			
	Equipment	(Tools)		\$500.00	100%	4%	4%	\$500.00	
	Miscellaneous	Transportation		\$500.00	8%	4%	53%	\$6,500.00	
registration fee			\$6,000.00	92%	49%				





Team Fundraising Opportunities

Through the robotics club, we hope to make STEM more accessible to underrepresented and marginalized groups by providing opportunities for hands-on learning with things like CAD, machining, programming, and electronics and lowering the barrier to entry using club funds, and introducing mentors to students to open opportunities they may not have had knowledge of or access to previously while inspiring interest in various topics.

Currently, 70% of our team identifies as AAPI, 37% as Caucasian, and 11% as Latinx, and we are 77% Male and 23% Female, but we hope to even out the numbers over the next few years through advertisement and collaborations with cultural clubs on campus including the BSU and Latinos Unidos as well as clubs like the Society of Women Engineers and students in the Project Lead the Way Engineering Pathway.



WHAT ARE FUNDS FOR?

There are various funds associated with FRC. First and foremost, to compete, there is a \$6,000 competition registration fee. After registration, parts for the competition robot need to be purchased as a new robot is built every single year, each costing upwards of \$2,000. Linked here is a spreadsheet of purchases made in the 2023 First Robotics Competition (FRC) season, along with the breakdown of spending. Additionally, there are logistical costs including food and transportation for the competition, transportation for the robot, team shirts, and various outreach events, costs for off-season training and preparation for the competition, and costs to expand.





SPONSORSHIP BENEFITS +

Aside from the sponsor benefits listed below, sponsorships for the Wallace Dynasty would help students get early exposure to Engineering in a real workplace scenario, develop various skills, and provide opportunities for marginalized groups in STEM that they might not have had before. As FIRST Founder Dean Kamen famously said: "We're not using kids to build robots—we're using robots to build kids."

>\$2000

Royalty

Company's Logo displayed on Website
Company's Logo and name displayed in Competition Pit
Company's Logo displayed on T-Shirt
Company's Logo displayed on robot

\$1000 - \$2000

Duke/Duchess Level

Company's Logo and name displayed in Competition Pit
Company's Logo displayed on Website
Company's Logo displayed on T-Shirt

\$500 - \$1000

Knight

Company's Logo displayed on Website
Company's Logo and name displayed in Competition Pit





CONTACT US

If you would like more information on the Wallace Dynasty, or are interested in sponsoring us, please don't hesitate to reach out.

GENERAL EMAIL:

thewallacedynasty@gmail.com

WEBSITE:

team8045.com

MAIN CONTACTS:

Robotics Team Captain: Duy Anh Nguyen ->54058@cv.k12.ca.us

Robotics Director / Lead Mentor: Jessica Porter -> jporter@cv.k12.ca.us

MAILING ADDRESS:

Castro Valley High School Finance Office c/o
FIRST Robotics Club
19400 Santa Maria Ave Castro Valley, CA 94546

Please make checks payable to: "Castro Valley High School" with "FIRST Robotics" in the memo. A W-9 form is available upon request

