FRC Team 980 ThunderBots

A community robotics team for Burbank/Glendale/North LA County

2019 Summary Business Plan

Mission Statement

"To educate and inspire high school students to become the next generation of science and technology leaders by building a competitive robot through the guidance of professional mentors, corporate sponsors, and parents in alignment with FIRST core values.“

Team History & Growth

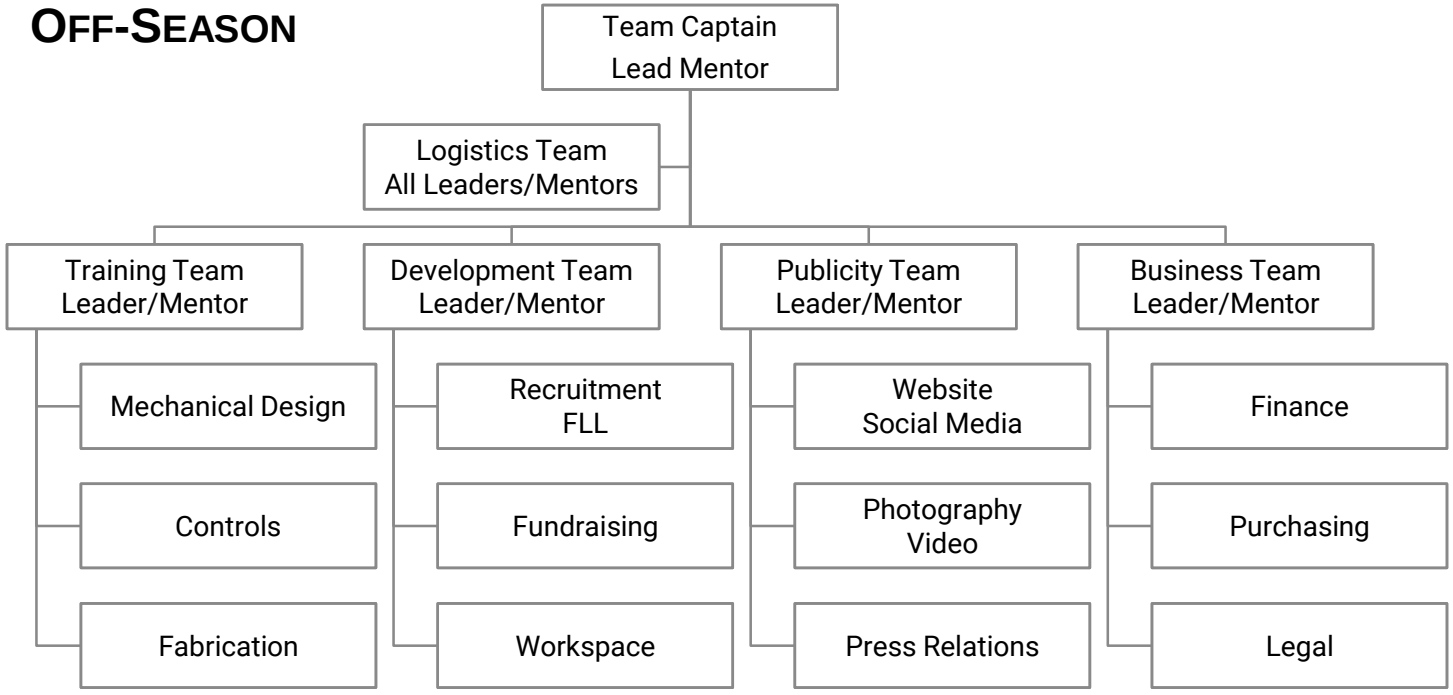
Team 980 is a community team, founded in September 2001 in La Canada-Flintridge, CA, with 10 students and 3 mentors. As of the 2019 build season we have approximately 20 students and 9 core mentors. Team 980 draws our members from the entire region - Burbank, Glendale, and North LA County - an area of over 2 million people. Our students come from over a dozen schools, from Santa Monica to Santa Clarita to Los Feliz. We are grateful to Walt Disney Imagineering for providing us with our current build space in one of their facilities.

As a community team, we are constantly expanding our recruitment efforts by attending Club Rush events at local high schools, holding Robotics Open Houses, and mentoring an FLL team whose members are our future!

Organizational Structure

Team 980 has three organizational charts for the three periods of the year: Build Season, Competition Season and Off-Season. The other charts are included as an appendix.

Off-Season



Risk Analysis

Since 2015, Team 980 has used a Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis to identify risks to our team as well as the strengths we use to overcome our challenges and expand our successful program. Our SWOT Analysis for 2019 follows:

Team 980 2019 SWOT Analysis

Our strategy is **W-O**, which means overcoming our weaknesses by realizing our opportunities.

	HELPFUL	**HARMFUL**
INTERNAL FACTORS	**STRENGTHS** • Mentor expertise and dedication • Major sponsors (JPL, WDI) • Adaptability • Diversity - students from different schools and backgrounds • Driven strongly by goals • Leadership • Initiative	**WEAKNESSES** • Internal communication • Attendance • Time management • Focus • Student fundraising / sponsor recruitment • Inconsistent ranking at competitions
EXTERNAL FACTORS	**OPPORTUNITIES** • The only FRC team in Burbank/Glendale area • Many schools to recruit from • Many companies to fundraise from • Many local organizations to share community events • Many FIRST teams to contact for inter-team activities • Training and education available • Competitive across range of available awards • Opportunities to mentor new FLL and JrFLL teams	**THREATS** • Losing students to graduation • Losing our build space • Losing sponsors • Losing mentors • Other competitive teams!

Marketing

Over the past several years, Team 980 has evolved from a solid engineering team to a well-rounded FRC team, culminating in our Regional Chairman's award in 2018. In parallel, we have honed our message, bringing in consistency across our promotional materials and developing a clear focus for our outreach events. From our build site on the Burbank-Glendale border, we are able to influence and inspire across our footprint in the San Fernando Valley. We call this branding and marketing initiative "Thunder Valley."

We run an offseason calendar of community outreach events: the LEGO Robo-Camp Program we host in partnership with the Burbank Public Library, the ABC7 & Southern California Firefighters Spark of Love Toy Drive, and advocacy and demonstrations through Open Houses an in front of civic and government entities like the Burbank City Council.

Part of the mission of Thunder Valley is to support FIRST across all four programs. Additionally, we support LA Robotics by participating and providing volunteers for Fall Classic, Maker Faire, and pre-bag scrimmage events. We support FLL by mentoring the first FLL team in Burbank Unified School District, Thomas Jefferson Elementary's AstroTech, and volunteering at qualifying and and regional tournaments in Los Angeles. Our mentors are key volunteers at regional FRC events and at Championships.

FINANCIALS

Team 980's financial statements for the 2018 season (actual) and 2019 season (projected) are included as an appendix.

Our income includes grants from by NASA/JPL, Walt Disney Imagineering, Boeing, and Raytheon. We are also utilizing the summary business plan and the FIRST sponsor packet template to recruit additional sponsors. We use Piggybackr for crowdsourced fundraising. Each student creates their own web page describing their motivation for participating in FIRST, then invites family and friends via email to visit their page and help them reach their fundraising goals. We have enrolled in several community rewards programs, including Ralphs/Food4Less, eScrip, Benefit-Mobile and AmazonSmile.

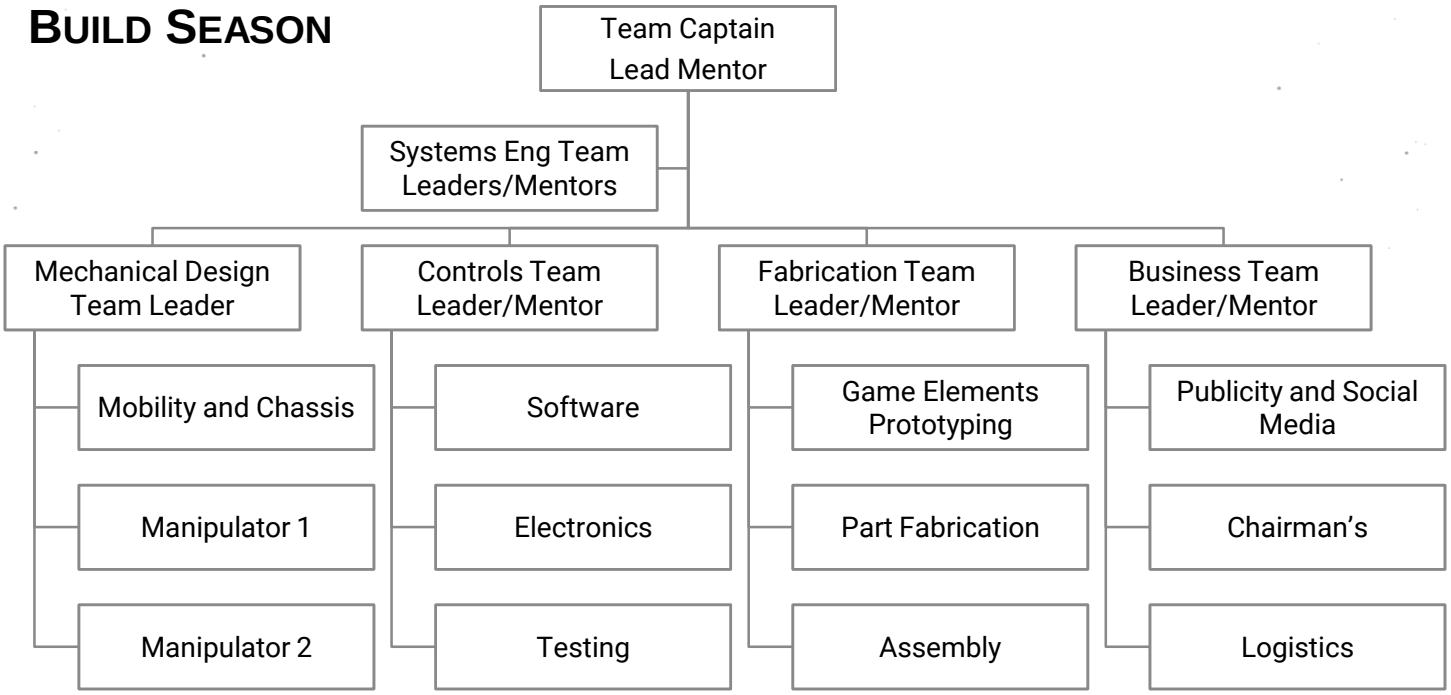
Team 980's expenses are relatively consistent. We register for two regional competitions and a few off-season events (scrimmages/workshops). Other expenses include robot construction and marketing/outreach. Our basis-of-estimate for parts, materials and supplies are based on 12+ years of robot building experience. Our mechanical/fabrication mentors do "make-buy" decisions based on their own professional experience.

Team 980 has a contingency plan for raising funds to attend Championship. We are looking to create a reserve and recruit special sponsors who will commit the registration fee. Our students raise their own travel/lodging funds to participate in Championship.

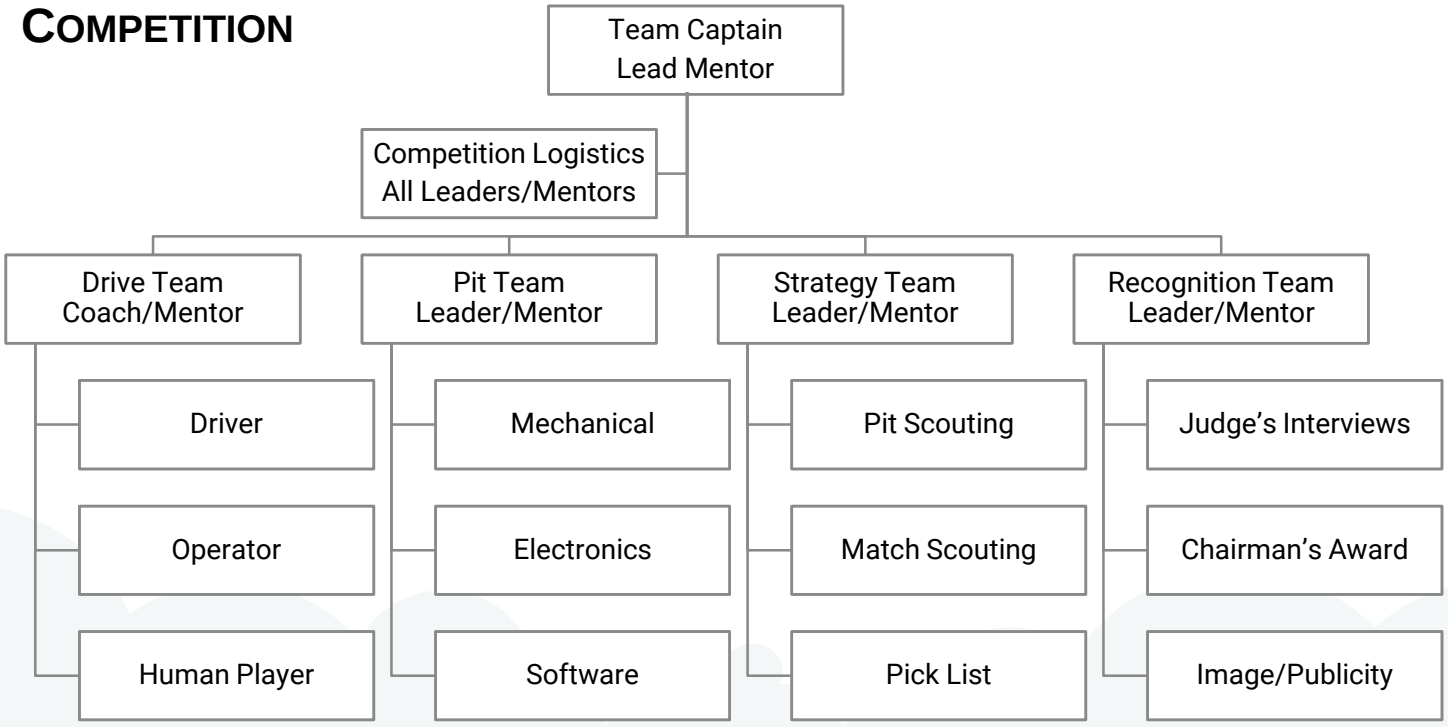
Team 980 is a 501(c)(3) corporation, registered with the CA Registry of Charitable Trusts and a Silver member of GuideStar information service for nonprofits.

APPENDIX A:
ADDITIONAL ORGANIZATIONAL CHARTS

BUILD SEASON



COMPETITION



Appendix B:
Financial Statements

Actual Income
2018 Season: $44,633

Sponsors: $15,250
- NASA, Walt Disney, Boeing

Private Donors : $8,193

Fundraising, Reimbursements: $21,190
- Piggybackr Net: $9,985
- Network, PayPal, Amazon, Misc: $2,447
- FIRST Regrant, Rebates, Refunds: $1,127
- Merchandise, LA Dodgers Tix: $1,492
- Hotel Reimbursements: $6,139

Actual Expenses
2018 Season: ($46,287)

FIRST, Event Payments: ($15,608)
- Los Angeles, Aerospace Valley: ($10,000)
- FIRST Championship ($5,000)
- Local Robotics events: ($608)

Team Expenses, Refunds: ($30,679)
- Parts, materials, tools, etc: ($10,653)
- Insurance, IT services: ($3,000)
- Shirts, promotional materials: ($5,319)
- Travel: ($10,398)
- Refunds, PayPal Fees, Misc other: ($1,309)

Projected Income
2019 Season: $44,000

Sponsors: $20,000
- NASA, Walt Disney, Boeing, Raytheon

Private Donors : $10,000

Team Fundraising: $12,000
- Piggybackr Net: $7,500
- Misc. Donations: $2,500
- Grants: $2,000

Projected Expenses
2019 Season: ($44,000)

Event Registration Fees: ($14,500)
- Los Angeles, Aerospace Valley: ($9,000)
- LA Robotics Events: ($500)
- FIRST Championship: ($5,000)

Team Expenses: ($29,500)
- Parts, materials, tools, etc: ($10,500)
- Insurance, IT services: ($2,800)
- Shirts, promotional materials: ($5,200)
- Travel: ($10,500)
- Other: ($500)

APPENDIX C:
BALANCED SCORECARD

PERSPECTIVE	OBJECTIVES	INDICATORS	GOALS			
			DEC-18	DEC-19	DEC-20	DEC-21
MISSION	Inspire a growing number of high school students	Number of students participating throughout the year	50	60	70	75
	Educate HS students in STEM	Average number of training hours in STEM per year x number of registered members (220 hours per year per student)	6600 hours received	7700 hours received	8800 hours received	9350 hours received
CUSTOMER	Growing number of members	Number of registered members	30	35	40	40
	Maintain mentor engagement	Number of registered mentors	13	14	15	16
	Be an effective team	Make it into eliminations in at least one regional tournament	yes	yes	yes	yes
		Be awarded at least one individual or team award	yes	yes	yes	yes
	Be active in Inter-team cooperation	Number of teams that we support or partner to execute an activity	20	25	30	30
	Promote FIRST mission	Number of people who received information about FIRST	30,000 people	35,000 people	45,000 people	45,000 people
	Be active in community service	Number of community event attended as a team	12	14	16	16
PROCESSES	Recruiting and induction	Number of students recruited in year	20	25	27	30
		Number of recruiting events	7	8	9	10
		Percentage of student retention	95%	95%	95%	95%
	Marketing process	Number of press mentions of Team 980	6	7	8	9
	Effective design	Simple and effective designs to meet our game objectives	100%	100%	100%	100%
		Number of students using CAD to contribute to the robot design	5	6	7	8
	Organization	% of team utilizing organizational tools	90%	95%	100%	100%
	Solid fabrication	Competition robot complete	2 weeks before bag day	2 weeks before bag day	TBD	TBD
		Build a second robot on time	1 week before bag day	1 weeks before bag day	TBD	TBD
	Effective controls	Student contribution to the source code	100%	100%	100%	100%
		Student contribution to the control design	100%	100%	100%	100%
		Controls features meet robot design objectives	100%	100%	100%	100%
PERSONAL GROWTH	Personal development	Percentage of graduating students who go on to higher education	95%	100%	100%	100%
	Commitment	Attendance	95% of students with 80% of attendance, no student with less than 50%	95% of students with 80% of attendance, no student with less than 50%	95% of students with 80% of attendance, no student with less than 50%	95% of students with 80% of attendance, no student with less than 50%
	Leadership and team work	Number of hours for leadership and team work training	9	10	11	12
FINANCIAL	Increase partnership with sponsors	Updates sent within the year	4	4	4	5
	Get new sponsors	Number of potential new sponsor meetings	12	13	14	14
		Number of new sponsors secured	4	4	5	5
	Increase student fundraising	Amount of money raised by students	$10,000	$12,500	$15,000	$15,000