



The *FIRST* Coach Experience
 Learn from the locals in the
 Mission Trails Robotics Community!



	FIRST LEGO League (FLL)	FIRST Tech Challenge (FTC)
The Team		
<i>What size are MTRC teams?</i>	4 to 8 students per team	7 but previously as many as 11
<i>What do MTRC coaches consider an ideal team size?</i>	4 to 6. Too many and they don't get enough time on the robot, too few and they don't have enough help with the project	6 or 7 is good for a low-budget team in a small space, but a team with a lot of room and parts could keep 9 or 10 kids busy
<i>What grades are MTRC robot team students in?</i>	4 th to 8 th grade, but usually a team has kids only a year or two apart	They started in 7 th or 8 th grade; next year all will be in high school.
The Budget		
<i>What was your budget your first season?</i>	\$1200 to \$1500	\$2500 to \$3000
<i>What's a good budget for a returning season?</i>	\$1000	\$1200 to \$1500
<i>What expenses recur each season?</i>	Registration fees, tournament fees, project supplies, shirts	Registration fees, competition kits, notebook supplies, shirts
<i>What are some examples of single season or variable expenses?</i>	Sensors, motors, replacement parts	Specialized equipment, replacement motors, extra parts, 3D printer filament
<i>What equipment can be reused each season?</i>	Robot, LEGO bricks, special equipment (sensors, motors)	Mats, field perimeter, electronics, robot parts, wheels, special equipment
<i>What was your biggest expense the first season?</i>	Robot and additional parts	Robot kit and electronics
<i>What is the biggest expense in returning seasons?</i>	Registration fees	<ul style="list-style-type: none"> • Competition set + shipping • Specialty parts (mecanum wheels, sliding rails, linear actuators)
<i>What is your "I Wish" budget?</i>	\$1500 to \$2200 per season	\$2000 to \$3000 per season.
<i>What would you spend the extra money on?</i>	Robot parts, tee shirts or other team wardrobe parts, team identity swag to share with others at competitions, field trips	Enough pieces for double chassis and double electronics, extra parts for brainstorming, spare motors, not having to worry about shipping fees
<i>Where do your team funds come from?</i>	Local businesses. More than one team started with parent contributions the first season. Many corporations will sponsor teams that their employees mentor. Qualcomm, NAVWAR, and Booz Allen Hamilton have done this locally; Raytheon, Northrup Grumman, and many other corporations have this relationship with teams in San Diego.	

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The Season		
<i>How long is the competition season?</i>	August through December, with post-season events in January and throughout the spring	August through February. Very occasional optional summer events.
<i>How many competitions do you attend in a season?</i>	2 or 3, 4+ if attending FLL Cup, Spring Showdown, or an invitational	4 or 5, 6 if your team is selected for Worlds!
<i>How often does your team meet each week?</i>	Typically 2 days/week, but it usually ramps up as we get closer to competition if the kids need more time to prepare for competition	Once a week for a brief check-in Zoom call; one or two times a week for building and programming. Many days per week before League Finals, especially for notebook work.
<i>How long is a typical team meeting?</i>	1 ½ to 2 hours, but can stretch to 3	2 hours, but can run much longer, especially on a weekend
<i>What is the busiest time of the season?</i>	October and November	January and February, but also the week before any competition
<i>What is the best time of the season?</i>	Any time you can hang out with robot kids, especially at competitions.	Competitions! Meeting and collaborating with other teams, and collecting team buttons

More information about the FIRST robotics programs at www.firstinspires.org

Need more information? Contact HCSTEMM at info@hcstemm.org.

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