



SKYSTONESM

PRESENTED BY **Qualcomm**

Rookie
Coach
Crash
Course

Introductions

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Agenda

- FIRST/Playing at Learning Overview
- Registration and your Dashboard
- Organization and Qualifiers in NorCal
- Control System and Equipment
- Engineering Notebook
- What to expect at competitions
- Resources



FIRST

For Inspiration and Recognition of Science and Technology

- “Parent” organization
 - 6,818 teams
 - 68,000+ participants (Ages 12-18; Grades 7-12)
 - Representing 37 countries
- FIRST manages:
 - Team Registration and \$275 registration fee
 - YPP (Youth Protection Program) Coach Screening
 - Student registration – team roster
 - Storefront – purchase control system and kit of parts
 - Annual definition of the game and rules



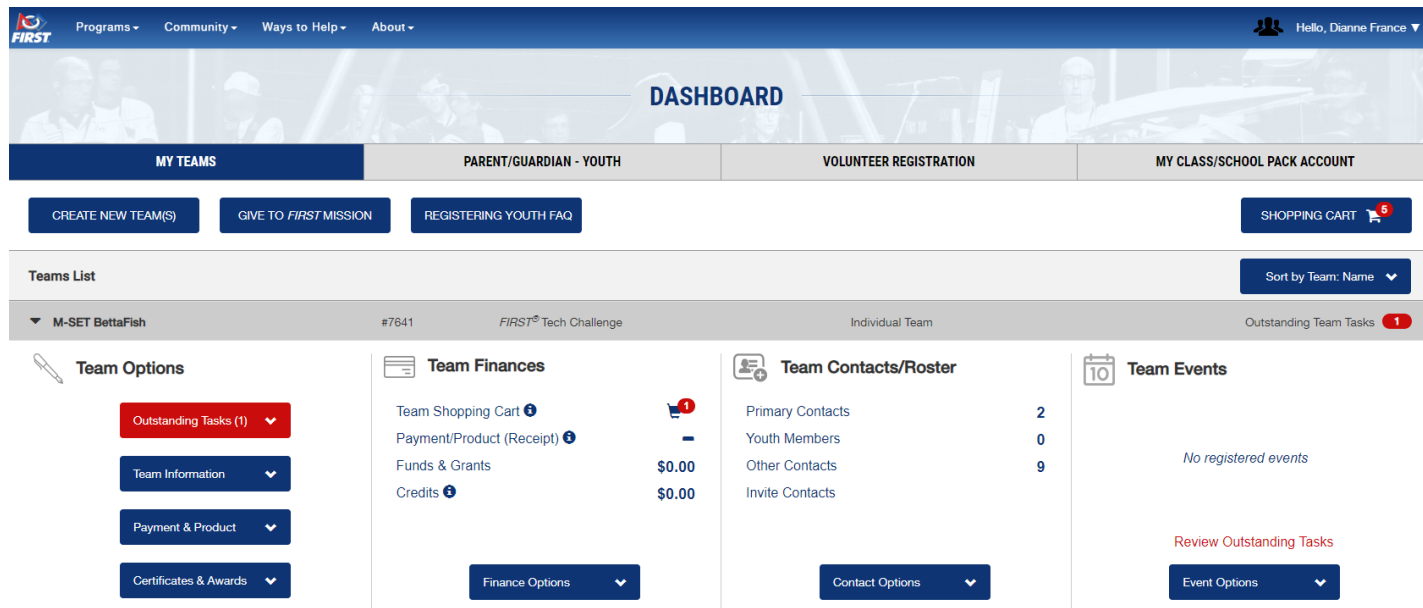
Playing At Learning

- Volunteer driven local non-profit 501(c)3
 - (Also manages FLL and FLL Jr.)
- Northern California FIRST Program Affiliate Partner
 - Provide local support to teams
 - Manage and support local competitions – Qualifying Tournaments (QTs)
 - Including registering for all competitions!! – **NOT** on the FIRST site
 - Runs NorCal Championship event



FIRST Dashboard

- Create a team
- Edit Team Information
- Pay for team/storefront
- Invite Coaches/Mentors
- YPP Screening for mentors
- Accept/Invite students for team
- Dean's List Nominations
- Grant information

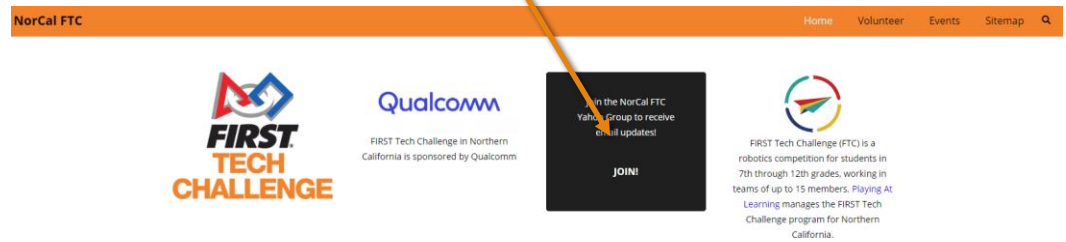


The screenshot shows the FIRST Dashboard for a user named Dianne France. The dashboard is divided into several sections:

- Navigation:** Programs, Community, Ways to Help, About, and a user profile for Dianne France.
- Dashboard Tabs:** MY TEAMS (selected), PARENT/GUARDIAN - YOUTH, VOLUNTEER REGISTRATION, MY CLASS/SCHOOL PACK ACCOUNT.
- Action Buttons:** CREATE NEW TEAM(S), GIVE TO FIRST MISSION, REGISTERING YOUTH FAQ, and SHOPPING CART (6 items).
- Teams List:** M-SET BetaFish, #7641, FIRST® Tech Challenge, Individual Team. Sort by Team: Name. Outstanding Team Tasks: 1.
- Team Options:** Outstanding Tasks (1), Team Information, Payment & Product, Certificates & Awards.
- Team Finances:** Team Shopping Cart (1), Payment/Product (Receipt) (-), Funds & Grants (\$0.00), Credits (\$0.00). Finance Options.
- Team Contacts/Roster:** Primary Contacts (2), Youth Members (0), Other Contacts (9), Invite Contacts. Contact Options.
- Team Events:** No registered events. Review Outstanding Tasks. Event Options.

NorCalFTC.org

- What you need to know locally
- 1st – Sign up for Yahoo Email Group!!



- Team List
- Qualifier List and Status
- FTC QT Registration dates
- Advancements



Control & Electronics System

REV Robotics Hub

Includes:

- REV Robotics Expansion Hub
- Phillips-head screws & nylock nuts (set of 4)
- Power Switch with bracket and XT to Tamiya adapter cable
- Color Sensor with cable
- Touch Sensor with cable



[View Larger Image](#)

\$129.00 (USD)

Control & Communication Set 2

This set includes the gamepads used to drive the robot.

Includes:

- Moto E4 XT phone (2)
- Moto E4 XT case (2)
- USB hub
- Micro USB OTG adapter (2)
- USB 2.0 Male to Mini-B 5-pin cable
- Logitech Gamepad F310 (2)



[View Larger Image](#)

\$249.00 (USD)

- Note: You must use the Rev Expansion Hub and 2 Android phones (Rev Control Hub is NOT LEGAL in NorCal for 2019)
- Other phones are legal and phones/gamepads may be less expensive elsewhere although bundle price is good



Competition Set

TETRIX® FIRST® Tech Challenge Competition Set

TETRIX FIRST Tech Challenge Competition Set includes:

- 824 TETRIX MAX building elements designed for competition
- Heavy-duty structural, motion, and hardware elements including a variety of wheels, and aluminum gears, channels, flats, and connectors
- Four TorqueNADO® DC motors with encoders, motor cables, aluminum mounts, and REV hub conversion cable pack
- Four 180-degree standard-scale servo motors and aluminum mounts
- Rechargeable battery pack and charger
- Assembly tools
- Sturdy storage bin, lid, and sorting tray

\$532.00 (USD)



[View Larger Image](#)

In Stock

ADD TO CART

REV FIRST® Tech Challenge Competition Set

- Aluminum robot structure
- Metal and Plastic structural brackets
- DC motors and Smart Robot servos
- 3 types of servo attachments
- Motor and servo power/data cables
- Bearings and shafts
- Multiple wheel options (Omni, traction, intake)
- Sprockets and chain
- 7 sizes of gears
- New REV Building System parts
- Fasteners and tools
- Slim Robot Battery and charger
- Heavy Duty Storage bin

\$444.00 (USD)



[View Larger Image](#)

In Stock

ADD TO CART

- Sets are not required but make getting started easier.
- Each have pros and cons – discounted through storefront



Playing At Learning

Equipment Pros/Cons

- Tetrix
 - Pros:
 - Cons:
- Rev
 - Pros:
 - Cons:



AndyMark kits

- Offers starter kits
 - More expensive
 - Many options including drive base kits
- Mechanical Parts
 - Wheels
 - Motors



Engineering Notebook

- Required to be considered for judged awards
- Absolute requirements if it's to be considered
 - i.e. Must have team number on the front
- Whole manual dedicated to notebook – READ IT
- Start TODAY if you haven't already



**2018-2019 *FIRST*[®] Tech Challenge
Engineering Notebook Guidelines**



What to Expect at Competitions

- Game Manual Part 1 section 4.0 “Tournament Day Outline”
- FTC Resource Library – Preparing for Competition
 - Arrive when doors open – not when you are scheduled for inspection or judging
 - Be prepared!! Bring your working robot and team roster!
 - Tournament Directors will send out information specific to their site – share this with team and parents!
 - Plan your food – don’t let your team get “hangry” – stay hydrated!
 - Set team’s expectations accordingly
 - Gracious Professionalism above ALL things – even when things go wrong
 - It may be loud, frantic, stressful, but FUN!
 - Look at other robots and talk to other teams



Resources

- Be willing to look and read a bit
- Official Manuals
 - Game Manual Part 1 (Robot, Tournament)
 - Game Manual Part 2 (Game)
- FTC Forums
 - Official Q&A – Opens 9/16
 - Robot Game
 - Robot Construction
 - Judging
 - Tournament
 - Community
 - Technology help



Resources (cont)

- Team Management Resources
- [Firstinspires.org/resource-library/ftc/team-management-resources](https://firstinspires.org/resource-library/ftc/team-management-resources)
 - Mentor Manual
 - Forum Registration Instructions
 - Robot Building Resources
 - Programming Resources
 - Engineering Notebook Guidelines
 - Dean's List
 - Prep Competition Checklist
 - etc,...

