Start-A-Team Checklist

- ✓ Create a *FIRST*® Account (www.firstinspires.org)
- ✓ Create a Team Profile
  - ○ Invite Primary Contacts
- ✓ Check out available grants (https://www.firstinspires.org/robotics/ftc/grants)
- ✓ Pay Season Registration and Purchase Product
- ✓ Complete Youth Protection Screening (US/Canada Lead Coach/Mentors only)
- ✓ Invite Team Members
- ✓ Reach out to an [Affiliate Partner](#) to Register for [local events](#).
- ✓ Review Available Resources on the [Team Management Resources](#) page.

For a full walkthrough, check out our [Team Registration for Rookies](#).

Kit of Parts Options

Categories	Set of Parts Name	Cost	What's In The Set
Teams may purchase ONE of these Control & Communication Sets	**Control & Communication Set 1** (ideal for veteran teams)	$199.95	• Moto G phones and covers (2) • USB 2.0 A Male to Mini-B Cable • USB Hub • Micro to USB OTG cable (2)
	Control & Communication Set 2 (ideal for rookie teams)	$219.95	• Moto G phones and covers (2) • USB 2.0 A Male to Mini-B Cable • USB Hub • Micro to USB OTG cable (2) • Logitech Gamepad F310 (2)
	Control & Communication Set 3	$45.95	• USB Hub • Micro to USB OTG cable (2) • Logitech Gamepad F310 (2)
Teams may purchase ONE Electronics Modules Set	**Electronics Modules and Sensors Set**	$124.95	• REV Robotics Expansion Hub • Philips head screws (4pc) & nylock nuts (4pc) set • Power Switch w/ bracket & XT to Tamiya adapter cable • Color Sensor with cable • Touch Sensor with cable • Motor Power Cable

Teams may purchase ONE Competition Set	**TETRIX FTC Competition Set**	$529.00	- Brackets and mounts - Structural channels, angles, & plates - Wheels and gears - Omni wheels - Battery pack and charger - Hard Point Connectors - Servos and DC Motors - Fasteners and tools - new TERIX® MAX pieces
	REV FTC Competition Set	$379.95	- 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

Useful Things to Consider

Physical Space and Storage
Classroom (the ability to push tables/chairs out of the way) or equally sized room with open floor
- Countertops/tables to serve as workspace
- During practice, tape a 12 ft. (3.66 m) x 12 ft. (3.66 m) square on the ground to serve as a field
- Large Storage Cabinet (1 or 2, depending on how much material you have)
  - Should be able to lock
  - Look for cabinets that are roughly 6 ft. (1.82 m) tall and 3 ft. (0.91 m) wide

Safety Considerations
- Always keep a first aid kit in the workspace, including disinfectant and bandages. Bring it to events. Any accidents should be reported immediately to Mentors. Make sure there is a telephone in the workspace, in case of a more serious injury.
- Have a fire extinguisher in the workspace, and make sure that everyone knows where it is and how to use it.
- The workspace should be kept clean and uncluttered. Cords should be kept out of walking paths and tools and materials should be kept in a designated storage area when not in use.

Basic Tool List
- Dremel tool or disk sander
- Hex keys
- Hand drills
- Small screwdrivers
- Tape
- Tie wraps
- Wrench metric set
- Wrench SAE set
- Zip ties

Advance Tool List (building on the Basic Tool List. Some of these tools require a workshop to use)

- Allen wrenches/T Hex keys
- Ball hex screwdriver
- Band saw
- Bench grinder
- Belt sander
- Chain breaker
- Deburring tool
- Drill press (mini mill)
- Drum sander
- Glue station (only if there is an available ventilation method)
- Hack saw
- Hot air guns (for bending plastics)
- Jigsaw
- Metal file
- Needle nose pliers
- Nut driver
- Sheet metal bender
- Sheet metal brake
- Table/radial arm saw
- Tubing cutter
- Variable speed drill
- Vise

Electronics

- Laptop to run your development tool
- At least one power strip

Beyond the Robot: Online Resources

Overview Pages	
FIRST® Webpage	www.firstinspires.org
FIRST® Tech Challenge main page	www.firstinspires.org/robotics/ftc
Regional Contacts Search Portal - *Find your Regional FIRST contact.*	http://www.firstinspires.com/node/2546
Game Materials - *Includes all the season materials, including the Game Manuals, link to the Forum, Forum Answered Questions, Field instructions, and link to buy field element.*	http://www.firstinspires.org/resource-library/ftc/game-and-season-info

Getting Started	
Starting a Team Resources - *Includes step-by-step resources for starting an FIRST Tech Challenge team.*	http://www.firstinspires.org/node/5281
Fundraising Resources - *Includes resources for budgeting and fundraising, including grants and resources from the FIRST and FIRST Tech Challenge Fundraising Toolkits.*	http://www.firstinspires.org/node/5406
Resource Library - *The location of all FIRST and FIRST Tech Challenge Resources. Organized in "articles", resources are grouped together by subject and can be saved to your personal Resource Library by clicking on the ♥ when signed in*	http://www.firstinspires.org/node/1586

Team, Robots, and Technology!	
Team Management Resources - *Includes all the resources for Mentors and teams on running the team: the Mentor Manual, fundraising, training, Engineering Notebook, preparing for competition, Awards, and more.*	http://www.firstinspires.org/node/5226
Robot Building Resources - *Includes all the resources for building the robot, including the PushBot Build Guides, Robot Wiring Guide, PTC design resources, and new technology resources.*	http://www.firstinspires.org/node/5181
Technology Resources - *Includes all resources for the new Android-based technology, including programming resources, Troubleshooting Guides, link to the Forum, etc.*	http://www.firstinspires.org/node/5291

Competition	
Preparing for Competition Resources - *Includes a checklist of items and resources to ensure your team is prepared for competition.*	http://www.firstinspires.org/node/5261
Events Search Portal - *Find local events (from tournaments to workshops and scrimmages).*	http://www.firstinspires.org/team-event-search
FIRST **Tech Challenge Dean's List –** *Every registered FIRST Tech Challenge Team is able to nominate 2 students (10th or 11th grade) to be recognized for their leadership and dedication to FIRST. Learn more about this amazing award!*	http://www.firstinspires.org/robotics/ftc/deans-list
Volunteer Resources - *Includes all volunteer training manuals and instructions for accessing the Schoology training.*	http://www.firstinspires.org/node/5146
Super-Regional Championships - *Information regarding the four U.S.-based Super-Regional Championships.*	http://www.firstinspires.org/robotics/ftc/super-regional-championship-tournaments

Outreach and Social Media

Outreach & Marketing Resources - *Includes resources and links to resources, virtual badges, marketing materials and team recruitment resources.*	http://www.firstinspires.org/node/5246
Links to Social Media - *All FIRST and FIRST Tech Challenge Social Media pages.*	http://www.firstinspires.org/node/4511
World Championship Results & Hall of Fame - *Location of all previous World Championships winners.*	http://www.firstinspires.org/node/5356

Beyond the Competition

FIRST® **Class** – *This curriculum provides authentic, real-world learning to students by bringing FIRST® Tech Challenge into the classroom. The curriculum is designed to be a stand-alone robotics/programming/engineering course for grades 7-12 but also follows a timeline to allow students to be competition ready if they choose.*	http://info.firstinspires.org/ftccurriculumrequest
FIRST **Diversity & Inclusion** – *FIRST® is committed to Diversity and Inclusion. Learn more about what this means for you and your team as well as gain access to free training, additional resources, and so much more!*	https://www.firstinspires.org/about/diversityinclusion
FIRST **Scholarships** - *Be proactive and start looking at over $50 million in scholarship opportunities available!*	http://www.firstinspires.com/scholarships
FIRST **Alumni & Internships** - *FIRST participants can search out internships made available for students who have participated in high school level FIRST programs. Network on the FIRST Alumni page and ensure you are always connected even after graduating from FIRST Tech Challenge.*	http://www.firstinspires.com/alumni

For the most up-to-date version of this list, check out our Useful Links Blogpost.

Additional Blogposts that help new teams

Building Teams that Build Robots

Engineering Notebook Overview

How to Prepare for an Event

Invisible Inequities Training: Toward a Bias-Free *FIRST* Front-Line?

What to expect at a *FIRST* Tech Challenge event

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