

# Key Assignments for MPA Robotics Team

## Student Roles

### • Marketing Team



- Help name the team
- Design team logo to necessary standards and manage the brand
- Develop products that incorporate team & sponsor logos (t-shirts & giveaways)
- Design & create banners for the robot, the pits & other spaces
- Design & make a team mascot, flag and flyers
- Create media plan, write & distribute press releases to media
- Document the team's progress through photos, videos & written pieces
- Post team updates to the web site
- Identify & thank the team's sponsors on the web site

### • Fundraising/Sponsor Relations Team



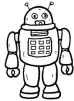
- Develop a Sponsorship Prospectus (listing key opportunities & benefits)
- Create a standard cover letter (that can be customized)
- Mine the MPA community to identify potential financial & "in kind" donors
- Assign donors to team members and track their progress
- Keep the team excited and moving forward to achieve our goals early
- Make sure that donors send their logos & give them to the Marketing Team
- Manage Sponsor relations (involve them with the team & thank them)
- Consider FIRST green light bulbs as a fundraiser

### • Web Site Development Team



- Understand programming enough to build a solid web site
- Create the team's virtual "go to" place for calendars, contacts, facts & visuals
- Incorporate the team's logo and brand into an aesthetically beautiful web site
- Make sure that the web site works well for internal and external users
- Build functionality into the site that can be further developed in future years
- Perform & show community outreach (and other FRC award metrics)
- Manage the security of the web site and keep it running smoothly
- Incorporate social media into the site
- Make sure the site takes advantage of the latest technology

### • Robot Design Team



- Understand sound engineering principles as much as possible
- Learn how to apply them to the FRC platform
- Study past FRC games and what robot characteristics were most successful
- Lead the team's design ideation session, as soon as the 2012 game is announced
- Help formulate the initial design concept for prototyping
- Interface with the Build Team to fine-tune the robot's design

### • Robot Build Team



- Take the Design Team's concept and translate it into a prototype
- Test the prototype to see if it works
- Tweak the design, as needed, to enhance the robot's performance
- Engage with engineering mentors to make sure it will work
- Be aware of safety standards and other constraints
- With design team, agree on final materials

- Source parts needed
- Build the robot & the bumpers
- Make sure that the robot meets all specifications
- Keep the robot in good working order & charge batteries at competitions/events

#### • Robot Software Team

- Understand Lab View programming software
- Develop a plan for what programming needs the robot has
- Program all functionality into the robot
- Test the software and tweak it, as needed, and keep software updated
- Build the drive station & keep it fully functional



#### • Safety Team

- Read the FRC Safety Manual
- Be the lead safety advocate, interfacing with all team members
- Develop safety standards and practices for the team
- Make sure the workshop is stocked with necessary safety equipment
- Create a set of rules and consequences for 100% safe work environment
- Work with Web Site Team to help ensure that safety extends to online security



#### • Drive Team

- Learn how to drive the robot safely & how to operate lifting/other key mechanisms
- Practice agility and speed with the robot
- Understand not only the mechanics but the philosophy of the game & point system
- Keep a positive attitude at all times - especially under pressure
- Understand who takes the lead under various conditions - work well as a team
- Cross-train other individuals on driving and operating the robot



#### • Community Engagement/Events Team

- Develop a plan for the team to spread the values of FIRST to the community
- Find practical ways to get the word out effectively about STEM & Robotics
- Plan Robotics feeder program to help draw in new team members
- Look for ways to bring experts in to talk to & train the students



#### • Outreach/Awards/Scouting Team

- Read all FRC award manuals and inform team members about key elements
- Explore what other teams have done to excel in the award categories
- Integrate best practices of Gracious Professionalism into the team
- Manage the scouting function - to explain the MPA team to others & vice versa

#### Electronics/Pneumatics Team

- Test and install all electronic components
- Design and test electronics board
- Test for electrical safety
- Act as a liaison with programming team to ensure proper alignment of code
- Spec and obtain necessary additional components
- Follow proper wire gauging
- Charge and maintain batteries
- Protect circuitry in shop
- Maintain pneumatic safety
- Follow general guidelines issued by FIRST

- Ensure regulators are in place
- Create a redundancy/back-up plan for competition

**Adult Roles**

Team Coach

Engineering Mentor

Marketing Mentor

Sponsorship Mentor

Community Engagement Mentor

Operations & Budget Mentor

Internal Communications Mentor

“Team Comfort” & Travel Logistics Mentor

Practice Field Elements & Crate Builder