

2016 Stewarts Creek Robotics Team Application

Name: _____

Email Address: Student _____

Parent _____

Home Phone Number: _____

Cell Phone Number: _____

Grade: ____ Gender: ____ Male ____ Female T-Shirt Size: ____

Ethnicity: (**this is a required part for BEST Robotics, Inc.**)

____ White ____ African-American ____ Asian American

____ Hispanic ____ Native American ____ Other

Years of Robotics Experience: _____

If you have experience, describe your experience with robotics below:

Are you interested in a career in science, technology, engineering or mathematics? If yes, briefly explain what field(s) you may be interested in.

Parent/Guardian Section

I acknowledge that my son/daughter _____ is applying to join the 2016 Stewarts Creek Robotics Team. I understand that it is a significant time commitment for my child. My son/daughter will be able to arrange transportation for after school meetings. I understand that my child is required to attend local game day, October 29, 2016 (8:00 a.m. to 5:00 p.m.). I understand that power tools are used in the process of fabricating the robot and exhibit booth. My child is allowed to receive safety training and is allowed to use selected power tools if he/she is on the engineering/construction team. I understand that there is a \$30 robotics team fee for equipment and supplies.

Parent Signature: _____

Date: _____

Please complete the following table. Place a check mark in each position to indicate the degree to which you would like performing the specific task. **Please be honest so that you can be placed in the position that will best serve the team and allow you to enjoy your experience with BEST.**

ALSO: Choose your 3 favorite teams and number them 1-3 (#1 being your top choice).

		Dislike				Like
Position	Description	1	2	3	4	5
Presentation (booth & “Suits”)	coordinate and design marketing presentation; will present at the booth or in front of judges					
Web Design (supports presentation team)	Create, update and maintain team website and social media accounts					
CAD Design/ Drafting	use Inventor, 123D Design, or Google Sketch Up program to create computer drawings of the robot					
Photographer	document team activities through photography					
Videographer	Create a video documentary of the entire robotic team experience					
Community Relations	Promote the program to community groups and media outlets					
Graphic Design/Artist	Create logos, t-shirt, and other artwork for booth					
Programmer	Learn C programming and program the robot					
Engineering (Robot Drivers & Spotters)	Design and construct the robot using power tools (intense commitment level- <u>MUST BE AT ALL MEETINGS!</u>)					
Booth Design	Help design the team exhibit with the product (robot) and game theme in mind. Works with a decision matrix to decide on the final booth design.					
General Construction	Assist with the booth construction, playing field, and other needed areas					
Rules Compliance	Make sure all rules for robot construction are adhered to					
Desktop Publishing	Create team flyers, newspaper articles, etc...					
Notebook	Documentation of the engineering process					
Spirit	Create mascot, cheer items, spirit stick, etc...					
Strategist	Develops a strategy for winning the robotics game					

2016 SC Robotics Team Resume & Task Instructions

Dear STEM Students,

This year, our selection process for sub-teams will be different. Sub-team members will be chosen based on a student resume. Your resume **MUST** be professional and include the following information:

- General personal information (i.e. name, address, phone, grade, mini-school, homeroom teacher, etc.)
- Brief summary about you (this is how you hook your interviewer—why should you be hired?)
- Experience in the area in which you are interested (see sub-teams below)
- Special awards
- Skills
- Education
- Volunteer work
- Additional information (this is your last chance to impress your interviewer...)

Remember, this is a resume for a position on a specific team, so any prior experience in that specific area you can list will be very helpful. Below is a list of the sub-teams in which you are eligible to apply:

- Engineering- robot design, robot construction, potential driver positions, rules and compliance, etc.
- Strategy- game strategy
- Community Relations- handles all finances and donations, including fundraising and finding team sponsors
- Photography and Videography- keeps visual records of team progress
- Web Page Design- designs and creates team web page, as well as keeping record of team organization and demographics
- Project Notebook- handles the organization of the team notebook
- Marketing Presentation- marketing presentation team—sells the product (our robot) to a panel of judges
- Exhibit/Booth Design- designs the team exhibit/booth
- Construction- constructs the team exhibit/booth
- Spirit and Sportsmanship- Spirit Team (mascot/costume, cheers/chants, noise makers, posters, etc.)
- Graphic Design & Desktop Publishing- designs the team shirt with the game theme in mind and handles all event flyers
- Computer Aided Design (CAD)- will use a 3D software program to draw Multiview sketches of the robot and its parts, as well as the team exhibit/booth
- Programming- will use C based software to program the robot

Along with a resume, you are also responsible for a specific task. Resumes and tasks are due on the date of presentation. See the attached page for each sub-team's task and presentation/due date. **You will stay after school from 3:30-5:30 on the day of your presentation.**

Sub-team Tasks and Due Dates

Sub-team	Task	Due Date/Presentation Date
Engineering	Design and build an army man launcher that will launch an army man the longest distance. You will also be judged on accuracy. You can only use rubber bands as the source of energy. Can Must follow and document the Engineering Design Process . Pictures, hand drawn sketches, and CAD drawings (using Inventor, 123D Design, or Google Sketch Up) are helpful in providing instructions for this task.	Tuesday, September 6
Strategy	Create a game strategy that would earn our robotics team the most points for the following game situation: Rocket Race: The Alien Escape Go to this web address for details of the game: http://www.bestinc.org/b_year_1999.php Your strategy must be presented digitally using Microsoft Word, Excel, and/or PowerPoint (you could use Prezi instead of PowerPoint).	Tuesday, September 6
Community Relations	Devise a plan to get our team involved in the local community. Plan a specific event where the marketing and engineering teams could present and/or demonstrate the robot in order to gain publicity for the robotics team. Include all details of the event (location, time, event summary, etc.). Your plan must be typed and presented electronically or printed out.	Friday, September 2
Photography	Create a portfolio of photographs that you have taken. Your portfolio must promote a product. You may have the pictures printed or create an electronic slideshow of your photography portfolio.	Friday, September 2
Videography	Create a short video or movie promoting a product using Movie Maker or any comparable program. The video must have music; it could also include speaking parts, text or words, and sound effects.	Wednesday, September 7
Web Page Design	Design, create, and publish a web page using Weebly (www.weebly.com). Your web page must promote a product. Your web page should include multiple pages, dropdown menus, pictures, video, and links to outside sources.	Wednesday, September 7
Project Notebook	First you must design a simple experiment (or use one from STEM class), following the Engineering Design Process. Document everything! Use your documentation and data to create a digital notebook centered around your simple experiment. Include a title page, table of contents, each step of the Engineering Design Process, a blueprint, and a conclusion. You may use Microsoft Word, Publisher, or any other comparable program.	Tuesday, September 6
Marketing and Booth Presentation	Create a 3-5 minute presentation/speech promoting a product. Your presentation must have visuals, such as a Prezi or PowerPoint. You may also use props as part of your presentation.	Wednesday, September 7

Exhibit/Booth Design	<p>Design an 8'x8' exhibit for the following theme: Rocket Race: The Alien Escape You must have hand-drawn or computer generated blueprints with measurements, as well as Multiview sketches. All blueprints must be labeled. You must also describe what items would be in the exhibit.</p>	Wednesday, September 7
Construction	<p>Design and build an army man launcher that will launch an army man the longest distance. You can only use rubber bands as the source of energy. As part of the construction team, pay attention to the quality of the launcher. Must follow and document the <i>Engineering Design Process</i>. Pictures, hand drawn sketches, and CAD drawings (using Inventor, 123D Design, or Google Sketch Up) are helpful in providing instructions for this task.</p>	Wednesday, September 7
Spirit & Sportsmanship	<p>Create at least five cheers or chants that could be used on competition day. Make it interesting with noise makers, posters, and props! You will be performing these cheers. You have the option of partnering with other students interested in Spirit Team.</p>	Friday, September 2
Graphic Design	<p>Design a team t-shirt for the following theme: Rocket Race: The Alien Escape You must have hand-drawn or computer generated sketches in color. This needs to be completely original artwork, not clipart from the computer. You may use online programs, such as Paint, Paint.net, Custom Ink (http://www.customink.com/services/t-shirt-creator), Spread Shirt (https://www.spreadshirt.com/design-your-own-t-shirt), etc. Save your design or use your computer's snipping tool to save the image. You may bring a hand-drawn, printed, or electronic copy of the design.</p>	Friday, September 2
Desktop Publishing	<p>Design a team flyer for the following theme: Rocket Race: The Alien Escape You must have hand-drawn or computer generated sketches in color. This needs to be completely original artwork, not clipart from the computer. You may use online programs, such as Paint, Paint.net, Publisher, etc. Your flyer needs to include information about a team event, such as the robotics competition at Lipscomb University on October 29.</p>	Friday, September 2
CAD	<p>Design and create a 3D blueprint (or sketch) of a bridge. You may use Onshape, Autodesk 123D Design, Autodesk Inventor, or Google SketchUp. Your bridge blueprint must include specific measurements and be seen in multiple views.</p>	Tuesday, September 6
Programming	<p>Create a video game on Scratch (https://scratch.mit.edu/) or Tynker (https://www.tynker.com/). You must incorporate at least one sprite, changing backgrounds, music or sound, and text. The code must allow the player to win or lose. You must use a counter so the player can see the amount of points they earned.</p>	Tuesday, September 6