

## **FIRST Robotics Team 3324 The Metrobots 2015 Season**

To the PTSO

The students of the Metrobots are preparing for the 2015 FRC season. As part of our preparation, we have developed a budget for this season. Our goal is to raise \$30,000 to cover team costs which include regional entry fees, travel, robot design and fabrication. The following is our presentation to the PTSO to request \$5000 for our initial entry fee to the Pittsburgh Regional.

Thank you for your consideration,

FRC Team 3324 The Metrobots

Prepared by Maria Krantz, Sam Loeffler, Silas Birdsell, and Jolene Tran

### **Proposal Evaluation Metrics**

#### **Student Participation (45%) Prepared by Maria Krantz, Sam Loeffler, Silas Birdsell, and Jolene Tran**

a) Is the proposal generated by Metro students?

The proposal is prepared by Maria Krantz, Sam Loeffler, Silas Birdsell, and Jolene Tran.

b) Did the idea encourage Metro habits?

Yes, participation in FIRST encourages the use of the Metro habits in many ways.

*Active and Responsible Decision Maker:* The students must actively participate in the design, fabrication, and competition of the robot throughout the six week build season.

*Engaged Learner:* Students must work with each other, the mentors, and the teacher/coach in order to raise funds, learn essential skills, design and build an effective robot.

*Critical Thinker:* Critical thinking is an essential part of being an effective member of the Metrobots. The season begins with a national kickoff event where teams all around the country find out what the challenge for the season will be. After kickoff, we begin to brainstorm solutions and strategies to complete the challenge. Critical thinking continues throughout the season as we research, design and test various mechanical, programming and electrical systems.

*Inquiring Learner:* As the build season progresses, students must ask each other, mentors and coaches for help on sub-system projects. Each subgroup is lead by a veteran member of the team.

*Collaborator:* Students participating in FIRST must work together in many ways. First, we begin the overall brainstorming process by working with several other central Ohio FRC teams. Second, we must work together as a team to design and build a successful robot. Finally, collaboration is essential to success at the regional events where we must work and compete with other teams.

*Communicator:* We use communication in a variety of ways as part of the Metrobots. First, we must meet and talk with potential sponsors in order to raise the funds necessary to support the team. Second, we talk with judges at the regional events about different aspects of our design and various award categories. Third, we serve as mentors for Metro Middle School's FIRST Lego League. Finally, we present and demo our robot at a variety of events throughout the year.

c) How many students are projected to participate in or benefit from the event/activity?  
Our team consists of about 45-50 high school students.

#### **Faculty/Staff/Administration (5%)**

a) Does the event/activity have the support of the school's administration?  
This is our sixth season and we have had and continue to have full support of the Metro Administration.

#### **Benefit to Metro Early College High School (30%)**

a) Will the event/activity benefit Metro HS programing and operations? If, so how?  
Participating in FIRST will benefit Metro in a variety ways. First, the challenges associated with FIRST can be applied to many academic areas such as physics (mechanics and electrical systems), geometry, art (t-shirt design, posters, and design), economics, and engineering. Second, the FRC robot is a component of the **Design** Early College Experience, Third, by attending the various regional events we expand Metro's exposure beyond central Ohio. Finally, our team members mentor the middle school FLL teams.

b) Will the event/activity benefit future students of Metro?  
Yes, our team will benefit future students of Metro because FRC is an ideal example the real-world problems that Metro students are capable of undertaking. Our demonstration of the Metro Habits, ability to problem solve as well as our success on the field will encourage other students to come to Metro.

c) Is the proposal creative? Novel? Does it excite the imagination? If so, how?  
Yes. Designing and building a robot to compete in a game that changes every year is extremely exciting and requires creativity to come up with unique solutions to each component of the game.

d) Will the event/activity be STEM-related?

Yes. FIRST is stands for “For Inspiration and Recognition of Science and Technology. The FIRST program enables students to think, not only in the terms of STEM, but also creatively in order to create a dynamic robot.

### **Quality of Proposal (20%)**

a) Is the proposal written in a clear, concise and convincing manner?

If you have any further questions we will be happy to answer them at the next PTSO meeting.

Please see our proposed budget for this season as you review our proposal. We have also submitted grant requests to Honda of America (\$5000 in process) and AEP (\$5000 received). In addition to the grant requests, we are planning several fundraisers such as a raffle (\$3000 anticipated), cookie dough sales (\$2000 anticipated), and bake sales (\$500).

<b>Anticipated Expenses</b>	
Primary Registration	\$5,000.00
Secondary Registration	\$4,000.00
World Champ Reg	\$6,000.00
Kickoff	\$100.00
Playing Field/game pieces	\$1,100.00
Robot Parts	\$5,000.00
Team Uniforms	\$2,500.00
Spirit Wear	\$500.00
Raw materials	\$2,500.00
Travel	\$2,000.00
Food	\$500.00
Buttons/ <u>flare</u>	\$300.00
Misc.	\$500.00
Total	\$30,000.00