Kingston Robo-Cards

Business Plan

Kingston High School

Team 4994

2014-2015

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Program Summary

Our Mission Statement

The Kingston Robo-Cards' mission is to generate interest and develop skills in STEM (Science, Technology, Engineering and Math) within our local community. We strive to be an open and inclusive FIRST Robotics team, so we are inviting to all interested members of our school and community.

Team Information

In the Beginning:

Our team was founded in September 2013 by Kingston Community Schools' Principal/Superintendent, Matt Drake and teacher/mentor, Matt Ferguson.

Location:

Our team is based at Kingston High School in Kingston, Michigan.

Facilities:

We will be using our Robotics classroom. It has a large open space in the back for building and a computer area in the front for business, programming and brainstorming. We also have our school's old shop room for machinery tools that we cannot have in the classroom. The room has a metal fabrication/welding area with welders, metal cutting tools, a press and a break for bending. There is a large woodworking area that includes a band saw, table saw, power sander and a drill press. There is also a ventilation and vacuum system. All of the machines are wired with emergency stop buttons for safety.

Sponsors:

Our major sponsor is SGS, Commercial Aging Services. MKR Steel.

What We Do:

We provide an inspirational experience for the participating students by getting them excited about robotics and the business that goes along with it. They will experience how a STEM curriculum can be enjoyable and stimulating. Our goal is to encourage the students to pursue a career in a related field.

Program Summary

Current Makeup

Our Team

The Kingston Robo-Cards - Team 4994 is unique because we are flourishing in a small, poor, rural, farming community. We have approximately 600 students in grades K-12 of which approximately 75% have free or reduced lunch due to their families' income. Our school district beats the odds nearly every year and our standardized test scores exceed what is expected of a community with our socioeconomic status. Having a team in the FIRST Robotics Competition will only continue our upward trend and engage our parents and surrounding community in educating our students.

Members:

During the 2014-2015 FIRST Robotics season, our team consists of twenty one students, nineteen guys and two girsl. We have one teacher and one engineering mentor so far. Our teacher mentor is Matt Ferguson, he is our math and art teacher.

Recruitment

The Kingston Robo-Cards envision a growing team due to informed and interested underclassmen. Our High School includes 7th through 12th grade students. The 7th and 8th graders will be enthusiastic because they will be able to see first-hand what is happening with our team and our robot. In order to get our elementary students excited about the program, we will invite class fieldtrips to our build area, and we will organize assemblies at the Elementary building to show case our FIRST Robotics program.

*See Appendix a. for a copy of the student member application.

Goals and Objectives

Short Term Goals

Our short term goals:

1. Update to newer equipment.
2. Qualify for states in the FIRST Robotics competitions.
3. Bring awareness to our new FIRST Robotics program.

Long Term Goals

Our long term goals:

1. Grow our FIRST Robotics program and become self-sustaining.
2. Gain national recognition, become a competitive force and be invited to a national competition.
3. Become big enough to become philanthropic.
4. Become a wealth of knowledge and resources for current and new FIRST Robotics teams.

Community Outreach Growth Plan

Our Vision

Our team has a close-knit relationship among our students, faculty and community partners as it reflects our small, close-knit community. Many of our students on Team 4994 are sons/daughters or family members of our community members. Being that we are the first FRC team in the three surrounding counties, we believe that our community and community partners are thrilled to see our FIRST Robotics program progress and grow. We know they are willing to support us. We envision our students, faculty and community becoming even closer knit than we already are. We envision our parents becoming more involved in students' academics because they will be able to directly see the benefits of being involved with FIRST Robotics Competition. We envision our community partners reaching out to our students for future employment and our students being excited about education and a STEM curriculum.

Challenges and Successes

Challenges

Weather/School closings:

In the event that there is no school, we have created team Gmail accounts to keep in close contact with team members and their parents. Our mentor has everyone's cell phone numbers and will send a mass text and e-mail in the event of a cancellation.

Gaining/maintaining Sponsors:

Being that this is our second year participating in the FIRST Robotics Competition, we are in the process of gaining more and more sponsors. We have been actively asking for sponsors by making our team members and their families aware of the need for sponsorship. We have made our Sponsorship Donation Form (*shown in Appendix b.) available to all members and parents. We are developing a list of businesses we would like to approach and are creating cover letters to attach with our donation form.

Student Participation:

In order to have continued student participation for years to come, the Kingston Robo-Cards maintain open communication with the community, parents and the school about the positive effects of having and maintain a FIRST Robotics team. We also work with our elementary students to keep them interested in robotics and STEM curriculum so that they will be involved once they reach high school.

Mentor Recruitment:

We are constantly recruiting new mentors. We try to recruit mentors through sponsorships and relationships we form with businesses. We also look for mentors in the community and families of our team members.

Successes

A success for the Kingston Robo-Cards will not only be to build our robot and compete in our second year event but will also consider it a success to bring awareness to the program. We are in the middle of a poor, rural farming community, and we want to show our students and community members that we can be recognized in a national and global market.

Budget and Funding

Anticipated Budget

Our anticipated team budget for our second year is approximately $11,200. A large portion of this money will be used to purchase newer equipment needed to have a productive build area and a trailer for hauling our robot and equipment to competitions and promotional events. Next year we anticipate our anticipated minimum budget to be about the same as this year.

Our projected first year budget is as follows:

FIRST Registration -	$5000 (includes 2 district competitions)
Practice Field -	$
Team Shirts -	$500
Robot Construction -	$3000
Tools -	$500
Administrative -	$200
Travel costs -	$2000 (includes meals and lodging, approx. $100 per team member)
Total:	$11,200

Funding

We plan to fund our second year with a combination of Grants and Sponsorships.
Thus far, we have applied to three different grants: The Honda Grant, $7300 grant; the FRC Argosy Grant, $2000 ; and a grant from The Tuscola County Community foundation , for a trailer and new tools. That makes our grant grand total $9300.

The money that we receive for our second year for the FIRST Robotics Competition is extremely important. This is the year where we have more knowledge than last year and know how we want things to run. The Robo-Cards want to set an example for the businesses and the surrounding community that shows dedication, motivation and success and we can do that this because we have a gameplan to make things run more efficient and smoother.

Sponsorship

Current Sponsors

Relationships:

We have partnered with Commercial Aging Services, LLC., from Taylor MI, (www.catalystaging.com). The general manager of Commercial Aging Services offered use of their new machine shop and some of his employees' time to teach our team how to use the machinery. Two of his employees have coached FIRST Robotics Competition teams in the past and are willing and excited to instruct our team in fabrication, mechanical concepts, electrical concepts, computer programming, controls and computer aided design.

All of our sponsors so far, will enable our team to be successful by showing and teaching us the proper techniques needed to build robots. Our mentor, Matt Ferguson, is familiar with CAD and animation. He also has robot programming experience with welding robots in the automotive industry.

Sponsor Recruitment

Being that this is our second year, our team has accumulated more sponsors but is still actively trying to recruit more.

*See Appendix b. for a copy of our Sponsorship Donation form.

Appendix

a. **Member Application**

b. **Sponsorship Donation**