

2013 Chairman's Award Entry Essay

The Power Hawks are a FIRST FRC Robotics team based out of South River High School, made up of 38 students, from freshmen to seniors. Our students have diverse interests, ranging from the fine arts to the hard sciences. The Power Hawks are unique in their commitment to the core



values of FIRST: encouraging youth to broaden their perspectives and expand their horizons, inspiring the community to promote science, technology, engineering, and mathematics, and impacting our own students.

These aspects of FIRST are seen through the Power Hawks, this past fall, when a first-year team at Archbishop Spalding High School asked FIRST team 1111, the Power Hawks, for help getting started. The Power Hawks invited them to South River High School, where they were taught how to program, operate during build season, appeal to businesses, reach out to the community, and work cooperatively as a team. The Power Hawks will continue to mentor them throughout the build season. Through these efforts, the Power Hawks work to add to the spirit of “gracious professionalism” that FIRST stands for.

The Power Hawks heavily involve themselves in the non-FIRST community as well. One way the team accomplishes this is by tutoring at the local middle school twice a week. We lead a group of forty people at Central Middle School to help the students understand their coursework, practice better study habits, and develop professional social skills that will propel them well into their high school and post-academic careers. Last year, we accumulated over 2,100 people-hours and impacted over 2,000 students. By working one-on-one with the middle school students, many of the tutors develop strong bonds with their tutee, showing interest in



overcoming their personal and academic struggles, which cannot be achieved in a typical classroom setting. As a result, the students are more inclined to put in the extra effort to take the next step in order to gain a sense of self-achievement after recognizing their own improvements both socially and scholastically.

The Power Hawks encourage academic and professional excellence by sponsoring more than 15 different FLL and FTC teams across the country. Our team donates both money—to help pay for competition expenses and various materials—and time, in order to teach these teams engineering, mechanical, and business skills. The Power Hawks support three FTC teams at South River High School: the Talons, FIRST team 3796; the Junior Power Hawks, FIRST team 3583; and the Mech Hawks, FIRST team 5178. These FTC teams serve as a stepping stone to the FRC team where potential members can learn fundamental skills such as the design process, how to use power tools, and when it is appropriate to incorporate these skills. These skills continue to be useful past high school, as students tackle the workforce in the science and engineering fields. Having FTC teams at South River makes FIRST robotics accessible to all, widening awareness of FIRST while inspiring students to become problem solvers for the future.



Public awareness and support is the backbone for any organization's growth. The Power



Hawks are well known in our community and surrounding areas, such as Annapolis, Kent Island, and other areas in Pennsylvania and Virginia. Through our demonstrations and fundraising, we seek to increase awareness in order to inspire greater levels of respect and honor for science, engineering and technology. The team stays



connected to the community at large via demonstrations of our combined STEM skills and ingenuity. Demonstrations stimulate interests of crowds by showing the idea of FIRST, to entire communities, by explaining robotics ideas and concepts more clearly, and keeping our sponsors engaged by showing them the team's creativity. Our demos are a large component of how we give back to FIRST. It is a great opportunity, for our team to spread the word of FIRST by going to the community and presenting to the public our accomplishments. We go to companies and corporations, such as NASA, SAIC, GSIPT and more to showcase our robot and awards. In the process of demonstration, we also gain potential sponsors and mentors, aiding in the growth of our team, both in spirit and in strength.

A day at South River without seeing at least five team shirts is rare; we epitomize FIRST pride! Strangers occasionally are intrigued by our shirt design and ask "Who are the Power Hawks?" making it most opportune for us to spread FIRST's purpose far past our team's official reach. The Power Hawks have left such an impression on our sponsors that they often request to be kept up with the team's latest news and status.

The Power Hawks have made the process of seeking sponsors a way of spreading the ideas of FIRST. Rather than quietly going from company to company, the team has created fun ways to become better known nationwide. One such method, known as "flocking," is a unique way of raising money by strategically filling a community member's lawn with plastic flamingoes as well as the team's name and information. This raises awareness not only of the individual being flocked, but also of passersby and the whole neighborhood. Flocking became a national event when we sent five of the flamingoes out during a Regional and National Competition. This undoubtedly contributed to other teams' awareness of the Power Hawks at the Championship. By the Power Hawks' current level of promotion within the community and their efforts to increase it, they inspire greater levels of honor for the STEM fields.

From the quiet to the loud, the tech-oriented to the artsy, freshman to senior- there is a place for anybody on our team; this is among the greatest of our priorities. The Power Hawks create an accepting atmosphere in



which students can learn the communication, problem solving, and presentation skills that they will use every day in their adult lives. The Power Hawks are more than a team; we are a family. This culture of acceptance means that members are not afraid to be different.

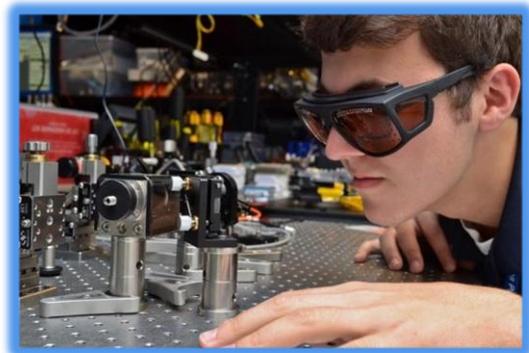
Additionally, the Power Hawks robotics team is run like a business. Not many realize that robotics is not just build-oriented; the Power Hawks have a large business side to our team as well, which is equally, if not more, imperative to the functioning and success of the team as the build side. For instance, our team is currently in our third year of our five-year business plan. This plan elaborates on how our team will continue to function and be sustainable for the



upcoming years. However, not all teams have a business plan or even incorporate a business side. When people hear “robotics” they think of technology, design, and construction. Since our team is run like a business our members learn valuable skills that prepare them for their financial endeavors in the business world. Regardless if the student joined solely

for one aspect of the team, business or build, every member of the Power Hawks is able to give presentations, explain their ideas clearly, think on their feet, and gain support with just their voice. Our team members are prepared to tackle any question the public has to throw at us and with the experience gained from our business end we can surely expand our outreach and spread the phenomenon of FIRST.

One’s ability to conceive new ideas is only paralleled in importance by one’s ability to communicate these ideas. Communication skills are a vital part of any career, especially in science and engineering pathways. The Power Hawks strive to ensure that each member is able to communicate effectively. In demos and in the search for



sponsorship, all team members learn to speak clearly and confidently about the values of FIRST and Team 1111. Communication within the team is just as important as communication with outside audiences. To these ends, the Power Hawks created a communications sub-team.



Their responsibilities include operating the team's website and online photo gallery for viewers around the world, along with facilitating communication between sub-teams and even developing an App for all teams to use that will make scouting easier for competitions. This app will be accessible to all teams and have regular updates. The business team is necessary to keep the Power Hawks running smoothly. Team 1111's priorities must therefore include ensuring that all members also have problem-solving skills. It is not easy to build a robot in six weeks, while balancing school, extracurricular activities, and jobs. One of the ways the team helps students develop these time management and problem solving skills is by conducting team-building activities, such as a camping trip and laser tag that focus on these disciplines. Visiting alumni of the Power Hawks have confirmed that project management skills extend far beyond the reaches of their experiences in high school.

The Power Hawks have always engaged in activities that serve two main functions: first they aide the community and second they convey the importance and benefits of FIRST to others. Since the team started contributing to the community by promoting STEM values, there has been a huge increase in awareness of FIRST, and, more importantly, what it stands for. Through our constant and unwavering dedication to using FIRST to expand the minds of the future leaders of this world, we have made a lasting difference that will make the future a brighter one.



2013 Chairman's Award Entry Executive Summary

Briefly describe the impact of the FIRST program on team participants with special emphasis on the 2011/2012 year and the preceding two: Compassion, confidence and responsibility are all values that our team members have developed during the year. As Power Hawks we are given the opportunity, through FIRST Robotics, to work with over 20 professionals from organizations like Microsoft, NASA and Motorola. We have learned engineering skills—like project management and CAD—and business skills, like email etiquette, and public speaking. These skills have ultimately led to a motivated student body and a 100% degree seeking alumni.

Examples of role model characteristics for other teams to emulate: Our team is completely student led and driven by the students' passion for robotics. Our five-year sustainability and FIRST Robotics Awareness Plans (FRAP) have created a business awareness within our team. We are working towards our ultimate goal of becoming a perpetual role model for the FIRST program. The team has exceeded 21000 student hours over a three year period; we are an accepting and patient group that always offers a hand to other teams, businesses, our school or our community.

Describe the impact of the FIRST program on your team and community with special emphasis on the 2011/2012 year and the preceding two years: The Power Hawks have established over 15 FLL and Jr. FLL teams throughout Maryland we hosted an FLL Qualifier each of the last four years and a Jr. FLL Expo during the past two years we have also started three FTC teams. All of our team's combined efforts have reached thousands of people. Our academic tutoring program has inspired youth to pursue STEM. Through demos of our robot, we have shown the community the pride of FIRST and influenced our school into creating a core element of STEM.



Team's innovative methods to spread the FIRST message: The Power Hawks: Home of the Flockers! A few years ago the team has been ‘flocking’ yards with pink flamingoes in an attempt to raise awareness of the team and hold a ‘fun-raiser’ that has spread our name in the community. The Power Hawks have also made duct tape flowers and other products to sell at craft shows and school functions. Also, with our tutoring program at the local middle school, students and their parents have been shown the benefits of FIRST Robotics.

Describe the strength of your partnership with special emphasis on the 2011/2012 year and the preceding two years: Our sponsors have been invaluable in funding and supporting us with mentors and services. We developed a Demo team that sends members to promote us FIRST at our sponsors businesses. At our school we maintain a facility and in return we positively represent the schools’ name. As part of the Power Hawk family our mentors serve as role models, teachers and even friends. With mentor guidance our connection with the community has been fruitful in promoting FIRST.

Team's communication methods and results: The team has both an internal and external communication structure. Internally we maintain contact through email, Edmodo, and Google docs for members, mentors and alumni. Externally, we operate a Facebook fan-page, manage a website, and often send out promotional materials to our current and potential sponsors. Our business team has developed relationships with local media and regularly provides them with exciting press releases.

Other matters of interest to the FIRST judges, if any: When our booster club became a non-profit 501(c)3 a few years ago, we immediately started shifting into a year-round organization. Our team has developed an App that will allow us to perform scouting from our smart phones for ours and other teams. From mentoring other teams to hosting a FLL Qualifier our team pride is evident in the shop, school and community.



2013 Chairman's Award Entry Video Lyrics

“A Little Help from My Hawks”

Sung to “With a Little Help from My Friends” by the Beatles

What would you do if your machine didn't work,
Would this problem bring you to your knees?
We'll lend you our tools and help fix your bot
and we'll do it with nothing but ease.

Oh, I get by with a little help from my hawks
Mm, I can fly with a little help from my hawks
Mm, gonna try with a little help from my hawks

What do I do when build seasons away
(Does it worry you to be all grown?)
How do you feel with nothing to build,
(Are you sad because you're on your own?)

No, I get by with a little help from my hawks
Mm, I can fly with a little help from my hawks
Mm, gonna try with a little help from my hawks

Do you need a new mentor
We want somebody to help
Could we be your new mentor
We need somebody to help.

Would you believe in the spirit of FIRST
Yes, we're certain it lives at our school
The things that you see will make your heart burst
Yes, our FLL Showdown is cool,



Oh, I get by with a little help from my hawks
Mm, I can fly with a little help from my hawks
Mm, gonna try with a little help from my hawks

Do you need any tutors
We want somebody to help
Could we be your new tutors
We need somebody to help.

Oh, I get by with a little help from my hawks
Mm, I can fly with a little help from my hawks
Oh, gonna try with a little help from my hawks
Yes, I get by with a little help from my hawks
with a little help from my hawks,
with a little help from my h-a-w-k-s

