

How can a group of thirty-five students expand a community's investment in extracurricular activities from football tunnel vision to one that cheers for metal and gears? We at Panthrobotics, FRC 3337, of Baton Rouge, Louisiana have made it our mission to create swift change in our school, community, state, and nation by:

- Developing a robotics team that is diverse, competitive, sponsor aware, and attractive to other students in the school.
- Mentoring local robotics teams and working to widen the scope of robotics implementation throughout the entire Baton Rouge area.
- Creating inspiring opportunities and experiences for both children and adults in our community.
- Developing partnerships with local, state, and national media to spread awareness in an innovative way.

Spreading the Message of FIRST through our Team and Partnerships

From its inception in 2010, Panthrobotics has worked to emulate other successful robotics organizations within FIRST. Both students and mentors maintain the belief that creating an innovative and competitive robot is integral to increasing community awareness and support for FIRST's vision. Over time Panthrobotics has developed into a successful team that is passionate about invention and engineering, open to a diverse group of members of varied talents, and able to establish long-term, meaningful partnerships.

An important goal of our team is to encourage all students to participate regardless of age, gender, nationality, or learning difficulties. Starting with just ten members in 2010, our team has grown to over 35 members comprised of young men and women, sports enthusiasts and self-professed computer nerds, spanning five different nationalities. We welcome students that struggle with challenges such as autism and AD/HD. We provide a safe environment in which all participants can develop socially and academically.

To secure long-term team members, we hold preseason recruitment events, pre-season kickoff meetings, and hold school-wide demonstrations at Woodlawn High School. In addition to these demonstrations, we have scheduled our 2012 robot to compete against Woodlawn High's basketball team for a game of "Horse" prior to the Bayou Regional.

We recognize all areas of interest and skill that must come together to form a tightly-knit team and to provide a successful build season. Panthrobotics members are not strictly science, math, and engineering-oriented; Panthrobotics members are also team experts in everything from media to graphic design. For example, by developing their skills in business and communication, team members have been able to develop partnerships with more than twenty organizations over a three year period and raise funds totaling over seventy-five thousand dollars.

We do not simply view these partnerships as a source of funding. We put much consideration into procuring and maintaining strong and meaningful partnerships in order to secure mentors and future team members. One of these mentor partnerships is with our state's flagship university, Louisiana State University. STEP, LSU's engineering program, assigns

committed and knowledgeable mentors to serve as role models, making team consistency and success possible.

Team 3337 actively promotes team and community interaction. While our build-site is always open to the public, for the last two years we have also offered an open house on the weekend prior to the end of build season. Faculty members from Woodlawn High School, parents, financial sponsors, and government representatives have been among those invited to our open house. We also participate in events that are important to our sponsors such as our attendance at JCPenney's Grand Reopening at the Mall of Louisiana where we met with Baton Rouge Mayor Kip Holden, explaining to him the importance of FIRST.

Spreading the Message of FIRST through Mentorships:

As one of the only FRC teams in the East Baton Rouge Parish Public School System (EBRPSS), a system of well over eighty schools, Panthrobotics recognizes its responsibility to the community in the creation of new FIRST robotics teams throughout the area. As we work toward this goal, we are mentoring and assisting other teams to establish a framework that can support more FIRST teams in the future.

We are currently mentoring Woodlawn Middle School's FLL team, Team 9170, as well as FRC Team 4209, University High School in Baton Rouge. Our mentors and team members constantly look for ways to assist other teams. Our most rewarding mentoring experience was helping a rookie team of only two members at the 2010 Bayou Regional. The rookie team had no code written upon arrival, at which point our programmers stepped in to help get their robot up and running.

Establishing a robotics curriculum through the school system is another avenue through which Team 3337 is spreading Dean Kamen's vision. Panthrobotics has been working with the EBRPSS grant writing office to acquire a grant from ExxonMobil that will allow for the creation of three high school and six middle school robotics classes. These classes will take students through two years of training in engineering, design, and project management. Our goal is to use these classes to begin FRC and FLL teams respectively.

As a team who is mentoring others, we believe that it is important to be role models to all that we encounter. When team members were asked to list Panthrobotics' admirable traits, the following characteristics were presented: optimism, determination, spirit, responsibility, helpfulness, social skills, communication skills, friendship, independence, and innovation. These traits go beyond a team dynamic. We believe that FIRST's standards do not just create teams worth emulating; FIRST's standards also build individual role models.

Spreading the Message of FIRST through Community Activism

Panthrobotics recognizes that it is not enough to build a winning robot. Becoming an adult that is both productive and community aware involves being involved in your community year around. Since its first year, Panthrobotics has worked to spread the message of FIRST and an excitement for invention to our entire area, both students and adults alike. We accomplish these goals using two methods: demonstrations and classes.

In 2010, we demonstrated our robot, El Verdugo, at the request of the Highland Observatory in Baton Rouge. This demonstration excited both our team members and patrons of the observatory. We continued this habit of demonstration with our 2011 robot, Dunker, bringing him to places such as the Mall of Louisiana and local elementary schools where we promoted the vision of FIRST to the students.

Panthrobotics is also working to establish classes outside of school. We are teaching classes in LSU's *Live! Learn! Louisiana!*, a College of Education program for gifted students from the surrounding area. Here we teach students how to design robots for specific tasks: program at a basic level, practice safety, drive our robots, and do simple building. In our next class we will be showing them how to design 3-D models using a Lego CAD program.

In addition to using events as a platform to impact our region, we also recognize our unique opportunity to give back to the community that supports us. For the 2012 build season, Team 3337 has created team shirts to increase awareness for Autism. Each shirt sold raises five dollars for Autism Speaks, a foundation that increases autism awareness. We offer the team shirts for sale at Woodlawn High School, community events, and from our own build site. We will also be participating in the Greater Baton Rouge "Active for Autism" 5K.

Spreading the Message of FIRST through Innovation

In the spirit of innovation, Team 3337 has chosen to use an arena to spread FIRST's message that is also committed to innovative practices: the media. We have been greatly involved in our local media. Our team members, mentors, and coaches have made numerous appearances through multiple media outlets, including two build site television interviews, a ten-minute live appearance on a local morning show, two radio stations, as well as interviews and printed articles in a number of different news-papers, magazines, and internet reports. Our most recent appearance was on the front cover of the People's section of Louisiana's leading newspaper, *The Advocate*.

One new media venture has been assisting the nationally broadcast Discovery Channel show, "Sons of Guns" in developing a robot to present in a future episode. While not directly engaged in the filming of the show or design of the robot, our team provided information and connected producers with AndyMark and Cross The Road Electronics. Our goal was to provide a national stage to demonstrate how important robotics is to every aspect of life. Through the show, FIRST's message will be spread to its three-million viewers and to further Dean Kamen's focus on making FIRST part of popular culture.

Conclusion

Perhaps one of the most unexpected benefits of our participation in FIRST robotics has not been what we have built, but what we have discovered within ourselves as individuals and as a team. We have increased our confidence in our strengths and have diminished lingering fears of trying new things and tackling our weaknesses. We have learned to work as a team to plan, design, and implement a project while immersing ourselves in our community. As a relatively young team, we in FRC 3337 have made it our goal never to settle for second best in any area, whether that area be competition, partner awareness, or community engagement.

We are building robots, creating professionals, and growing citizens that are set to change our school system and community. We are determined to increase the prevalence of the FIRST message in as many places and as far as our voices and robots can reach.