



LiveWire Robotics

FIRST Team 3562
Pocatello, Idaho



LiveWire was presented with some challenging circumstances this year. Late in September, we were unexpectedly informed that our school district was no longer sanctioning our team. We were required to donate all of our equipment, robots, and money to another team. Initially, this came as a considerable and potentially crippling blow. After careful thought and evaluation of our options, our team elected to continue and pursue veteran status under a new number from *FIRST*. In the midst of this upheaval, we were given the fantastic opportunity to partner with Bannock County 4-H and Idaho State University College of Technology Robotics Club. Under this new sponsorship the team has stayed together, adhering to the core values of *FIRST*, especially gracious professionalism. We're the same team embracing not only the task of building an innovative and competitive robot, but on spreading the message of *FIRST* around the globe.

In 2011 LiveWire's rookie year was more than successful. We held numerous outreach events and shared the message of *FIRST* with our community, attended our Regional where we received the Rookie All Star Award and went on to claim Highest Rookie Seed of the Newton Division at the Championships. After the completion of our season and the prospect of the "Off Season" dawned, we knew that we wanted our team to embrace the culture of *FIRST* all year. In light of that, we formed a new team motto: ***FIRST* Things First: Building a team. Building a community.** We had a desire to give the joy and opportunity of *FIRST* to all ages. We strive to accomplish this through FLL and FRC mentoring, summer camps, senior technology classes, international mentoring, showcases, outreach events, and an expansive literary platform.

With these ambitious goals, we dedicated a week to spreading the message of *FIRST* through presentations and service projects in the community. An official proclamation written by our team and signed by the mayor of Pocatello started the 2011 Week of *FIRST* with recognition at a city council meeting. LiveWire took the opportunity to educate the superintendent, school board, and community about *FIRST* and to demonstrate our 2011 robot. We presented to service groups and drew attention with robot demonstrations at all 3 local high schools as we drove our robot through school hallways, gave demonstrations at lunch and at Back to School Nights. We

hosted a Robotics Open House, consisting of an overview of *FIRST*, FRC, Gracious Professionalism and several hands-on stations: electronics, building, programming, and public relations, providing prospective team members a chance to experience LiveWire. To culminate the Week of *FIRST* we volunteered in a community effort to construct Brooklyn's playground, Idaho's first all-access playground-giving the gift of play to children of all abilities.

Annually, LiveWire conducts summer day camps, with team written curriculum, to introduce students ages 7 to 18 to the world of *FIRST*. Our camps educate students in gracious professionalism, programming, teamwork, and coopertition. Students of all experience levels are able to participate in a series of challenges and competitions using VEX robots. Teams of 2 worked on robots to compete at the end of the week in a tournament using our own designed game, which featured a coopertition task.

In 2011 LiveWire took outreach across the state, starting a unique FLL-styled summer camp in Twin Falls, ID. The team hosted a camp for 30 students from ages 7 to 14. This intensive 3-day camp resembled an accelerated version of FLL, beginning with an introduction into *FIRST*, FLL and LEGO Mindstorm NXT basics. Students constructed and programmed their own LEGO robots and concluded the week competing in our specially created *Rectangle Rumble* game challenge. They were so pleased with our camp; we were invited back to host our camp a 2nd summer and to act as class aides and chaperones at a sleepover science camp, further inspiring young students with the world of science!

Not willing to wait a full summer, LiveWire used the summer camp curriculum to host workshops to help Boy Scouts earn their Robotics Merit Badges. Three separate troops were represented and 12 merit badges were awarded from that camp alone. LiveWire has helped 28 Boy Scouts earn their robotics merit badges.

Our summer camp was very successful at spreading the message of *FIRST* and lead to the formation of 2 FLL and 2 FRC teams. With the formation of these new teams, LiveWire wanted to help them succeed in their rookie seasons! This led to intensive mentoring of our fellow *FIRST* teams. This season, LiveWire returned to a local school for its third year of FLL mentoring. LiveWire now includes team members who were on the FLL teams it once mentored! To date we have mentored 10 FLL teams, helping with everything from build design and programming, to presentation and outreach. This year's Senior Solutions game saw us volunteer at Pocatello and Twin Falls FLL regionals, providing judges, referees, head referee and even an event emcee!

We gave adult coaching workshops, written and presented by team members resulting in 6 new FLL teams. We hosted a Showcase Sendoff for the FLL teams going to state competition. We were able to explain *FIRST* and FLL events to parents and allow the students to better prepare for the events. FLLhelp@LiveWireRobotics.com, our FLL hotline, assists all FLL teams with problems they may encounter. Our FLL partnership didn't stop with their season's end. LiveWire is partnering with FLL teams to host a series of Senior Solution Technology classes where we help senior citizens learn to use modern technology. Our 5-month series walks seniors through computer basics, smart phone usage, digital cameras, and programs such as email, Facebook, and Skype.

Last FRC season was shaped by the 3 rookie teams; 2 from our Twin Falls camp and a 3rd team located in rural Driggs, Idaho. We assisted with frequent phone calls, weekly video conferencing, text messages and for one team an all-school Pep Rally (doubling their membership) emails and weekly video conferencing. We truly learned the meaning of coopertition! This season, our close friendship has continued with more long distance assistance, brainstorming meetings, dinner, and a week zero event. Our hotline FRCHelp@LiveWireRobotics.com assists other teams. Our Mobile Machine Shop at the Utah Regional in 2012 helped many teams and we look forward to providing it again this year!

But our outreach didn't stop there or even on US soil. One of our mentors is currently teaching across the Pacific in the United Arab Emirates (UAE). LiveWire has begun to bring *FIRST* to the UAE, working alongside an International School to start FLL and FRC teams for the 2014 season as students "virtually shadow" our team! After watching the FRC kickoff, they made small prototype shooter models to fling Pringle lid Frisbees and presented their ideas to the team. We used Skype to let them observe our robot, answer questions and share the excitement of Bag and Tag Night! These students are eager to join *FIRST*. LiveWire is thrilled to help introduce them to the culture of *FIRST* as we learn about their culture!

Our favorite outreach activities are robot showcases! We have given 34 showcases to our community, in diverse venues such as elementary, middle, high school classrooms, pep rallies, our local mall, ISU, 4-H events, science camps, service groups, and at the annual local Environmental Fair. This year's largest showcase was our 2nd annual Week Zero event, where we invited the ISU Robotics Club and FRC teams from SE Idaho and northern Utah to scrimmage on our practice field. Not only did this event provide teams a great opportunity to practice driving on our half court but it was a fun community event, with activities for all ages.

Since June 2011, the team has provided 3269 hours of community service in different projects. LiveWire partnered with a local youth group to send 88 new t shirts to homeless families in WA. In Dec, we were able to fulfill the wishes of underprivileged children as part of our annual Secret Santa service project. Our team believes in contributing to our community whenever possible.

LiveWire's unique Literary Platform has taken off in the last 2 years. In 2012, we wrote *To The Top* a children's storybook based on the 2011 Logomotion game-starring a *FIRST* team's minibot. The minibot learns what teamwork and perseverance can accomplish. This year's book, *IN BALANCE*, is based on the 2012 Rebound Rumble game. It focuses on the adventures of our 2012 robot, Mis. Fathom and her mentoring 3 rookie teams, who soon realize the value of coopertition and gracious professionalism.

These immensely popular books are being shared across the country and around the world! We read our books at every event including the Utah Regional. Through classroom and library readings, showcase events, and after school programs, over 650 children have heard our robot stories which emphasize *FIRST* core values. Continuing our international outreach, *To The Top* was translated into Spanish and distributed to 9 international teams in St. Louis last year. This year, *IN BALANCE* will be shared in Spanish and Gulf Arabic with the help of our new friends in the UAE! For the older audience, LiveWire continues to appear in the world of print with weekly team written articles for our local newspaper. For the last 2 years, regular team updates, game synopses and the progress of our robot have educated the public about *FIRST*.

This season, LiveWire constructed a Little Free Library-STEM Edition. It is a free community library (built to look like a robot) where people can borrow or donate books. At the library's debut children's eyes sparkled when they were told they could pick a book to take home.

LiveWire started the season with overwhelming adversity but we chose to live by this Albert Einstein quote: "In the midst of difficulty, lies opportunity." We have seized this opportunity. We believe and live the values of *FIRST*. We bring *FIRST* to all ages.

We are putting *FIRST* things first. We're building our team. We're building our community.