

2014-2015  
***STEM  
OUTREACH***

-



## **Camp Can-Do:**

Camp Can-Do was a children`s summer camp for mentally and physically disabled children. The campers were able to participated in STEAM activities some included building with legos, playing with gac, coloring, and driving the robot. With our interactions with the camp leaders and the children, we were able to impact 45 people.



## **Fly Fly Away smartphone app:**

This game was created entirely by students on FIRST Team 1741, Red Alert Robotics out of Center Grove High School in Greenwood, Indiana. Fly Fly Away allows you to control a disk through an endless barrage of goals as you try to attain the highest score possible. We created this game during the 2014-2015 season and it has already been a big hit!



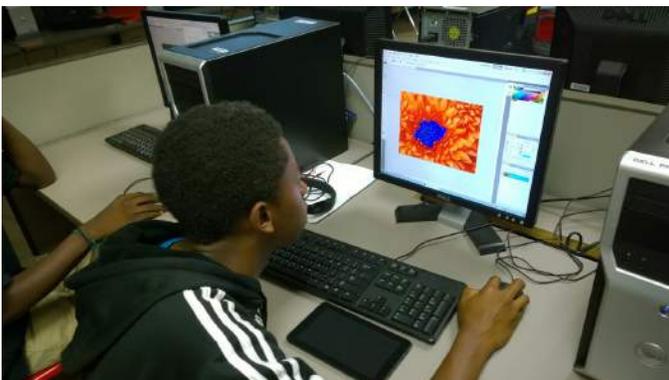
## **Indy South FLL Tournament:**

On November 15, 2014 we hosted and volunteered for the Indy South FLL Tournament at CGMSN. Our team made sure that each FLL team got to their scheduled destination in time. To make sure that everyone was supplied and satisfied, we provided concessions throughout the day. This was an enjoyable event that gave younger students an opportunity to see how our FRC team functioned together. Approximately 400 people were impacted, by Red Alert, through this event.



## **Red Alert Boot Camp:**

This was the first year that Red Alert hosted our boot camp. This one day event introduced FRC 1741 rookies and Team 4846 to FRC. Each captain/sub team caught a class, including about tips to be successful within a sub team, so that the rookies and other team(s) could adapt quicker. This event was to teach others about leadership and to establish a sense of belonging.



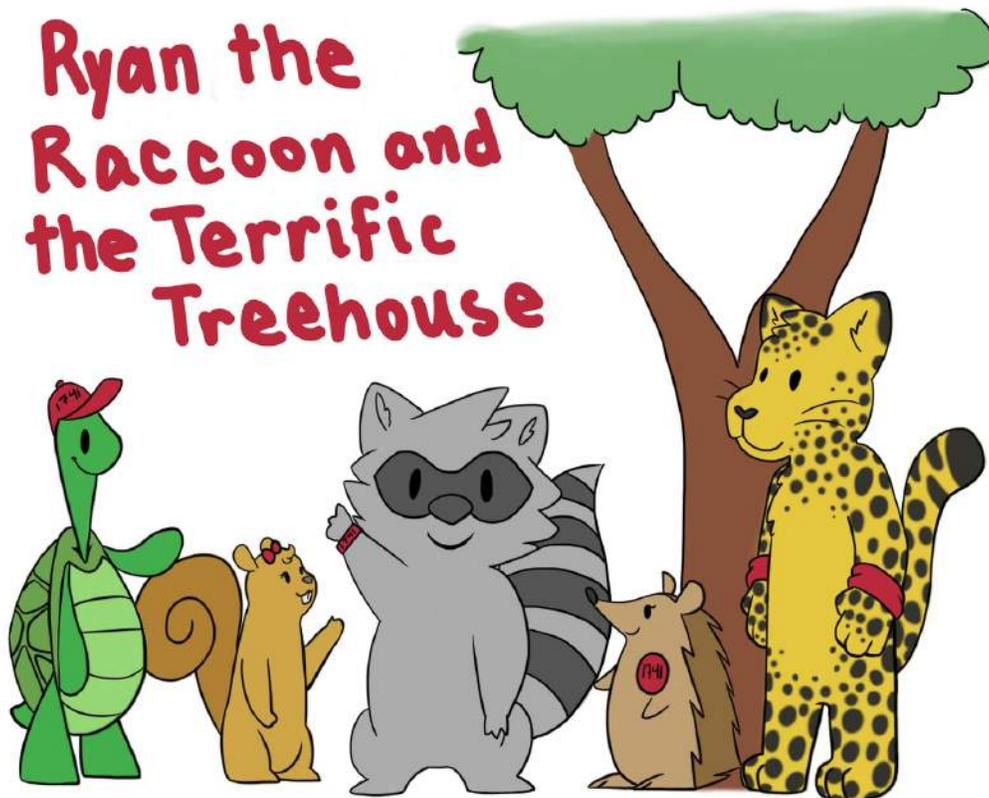
**GEARS (Girls Engineering Awesome Robots Successfully):**

When this program was started three years ago by partnering with the Girl Scouts Across America. We teach girls about STEAM and how to build and program NXT robots. A badge for the Central Indiana area was created for this program this past year. GEARS has been ran several more times, with an average of 35 girls participating in each session. We are continually invited to different locations to run another program by the Girl Scouts of Central Indiana. Through this program over 135 young girls have been impacted.



## "Ryan and the Terrific Treehouse":

In honor of our tenth season, we decided we would publish our very own children's book. The whole project began in October of 2014, starting with a storyboard and writing out the plot of the story. The story was to teach children proper safety procedures whether you're building a treehouse or building a robot. We then handed the story over to our media team where they created the illustrations for the book. By the beginning of February of 2015, our book had been sent to a publisher. We ordered a large number of books so that we can hand them out to children, and others, at our different events.



## **High School and Middle School Call Out Meetings:**

Every year our team also hosts callout meetings for Center Grove Middle School North on May 20<sup>th</sup> and one for Center Grove Middle School Center Central on May 22<sup>nd</sup> for any 8<sup>th</sup> graders interested in joining the team as freshmen. From those callout meetings we've impacted about 20 students. Our team has a callout meeting, August 21<sup>st</sup>, and this year we've impacted about 25 people from that event alone.



## **Indy South FTC Tournament:**

On November 22, 2014 we volunteered for the Indy South FTC Tournament at CGMSN. Our team made sure that each FTC team reached their destination at the scheduled time. We provided concessions to keep everyone supplied and satisfied throughout the day. This was a successful event that gave FTC students a view of what FRC does (and vice versa). It also provided an opportunity for students to bond and create vital teamwork skills. About 350 people were impacted through this event.



### **Children's Museum Demo:**

Our team organized STEAM activities by partnering with the Indianapolis Children's Museum. We demonstrated our robot to about 60 elementary aged kids and their camp leaders. The campers were able to see how our robot works and even were able to drive it! We then conducted a craft where they created their own catapult to launch at a target.

### **Sugar Grove Summer Camp Demo:**

Over our fall break, we were asked to demonstrate our robot to students at a local elementary school. This camp was held on October 20, 2014. We demonstrated our robot to the students and had STEAM rotations for the students. We were able to impact 80 students by partnering with this local school.



### **Strange Brew:**

We partnered with Strange Brew coffee house to create our own brand of coffee, named Robot Rampage. For every bag of coffee sold we get a percentage of the profits. We have impacted 150 people through our partnership with Strange Brew.

### **Senior Night:**

At the end of each school year our high school has a night to celebrate all that the seniors have done. As the FIRST Indiana State champions, we were invited to demonstrate our robot to inter 2014 graduating class. We impacted about 550 students and faculty members.

### **Not Just Popcorn:**

We were able to partner with a local business, Not Just Popcorn. We were able to show off our robot to the owners and their customers. We also created our own blend of popcorn named Red Alert Velvet. A percentage of the profits, when we fundraise, go to our team. We have impacted 125 people through our partnership with Not Just Popcorn.



### **McDonald's Dine to Donate:**

We partnered with McDonald's for a dine to donate night, in which a percentage of the purchases go towards our team. This event was held on May 13, 2014. Members from our team handed out flyers that promoted this event and it also gave the public an opportunity for a fun night out. Some of our students and parents kindly volunteered to be at McDonald's to support FIRST and our team. About 50 people were impacted through this event.



### **Vision Walk:**

At the annual Vision Walk in Indianapolis on September 27; our students volunteered to set up and tear down the event, as well as standing along the trail to direct the walkers to the finish line. We also demonstrated our 2014 robot, Jaws, and we helped hand out food and drinks to the participants as they came back from the trail. Throughout the day we were able to impact over 200 people.

### **Center Grove Elementary School:**

We went to a local elementary school to talk to the fourth and fifth graders about FIRST, STEAM, and to show off our robot. After demonstrating our robot we answered any questions that the students or teachers had about FIRST and our team. We were able to impact about 250 elementary students and teachers.

### **Endress & Hauser Demo:**

We partnered with one of our sponsors, Endress + Hauser, to demonstrate our robot to the STEM community. This program invited the community to raise awareness about careers and opportunities in advanced manufacturing. At this program we displayed our robot and spread the word about STEM opportunities. We were able to impact over 300 people at this event.

### **IT Girls:**

IT Girls is a program for girls that gives them the opportunity to be involved in the concepts of STEAM. Girls were taught how to work a programming software on computers and our team members were helping on the side. It was an enjoyable experience for both our team members and the young girls! This program helped the girls build vital leadership and teamwork skills. In the past year, a badge for the Central Indiana area was created for this program. In the last two years we have had about 60 girls attend this event. We are continually invited to different locations to run another program and build stronger relationships with our community!

### **Central Library Tournament:**

On November 22nd, we were asked, for the second year, to provide volunteers for the Central Library Tournament. This was a FLL tournament, held in Indianapolis. We sent a group of team members and mentors to help with a variety of activities including running judge score cards around the building, timing the presentations, and guiding participants around the facility. We also brought our robot for the 2014 game Aerial Assist to demonstrate what the students would be doing in later years if they continued with FIRST. Throughout the day, we impacted over 50 people that were not aware of FIRST.

### **Library Demos:**

On August 21<sup>st</sup>, our team went to Trafalgar on for a library demo where we let kids drive the robot and read books from the library about robots. A month later on September 20<sup>th</sup>, our team went to Franklin library where we also let kids drive the robots and give them an opportunity to create their very own popsicle-stick catapult. Our team makes sure our library demos engage kids in activities that require such thing as science and even sometimes a little creativity. From this event alone, we've impacted around 45 people.

### **Radical Robots Summer Camp:**

Red Alert students planned and executed a five day children's camp where the elementary aged kids were able to program and compete with NTX robots. We also engaged them in STEAM experiments, some of which include constructing catapults, balloon cars, and water rocket. They also saw robot demonstrations and had a chance to drive our robot.

### **Project Linus:**

Finally, our team does a Project Linus weekend where we make blankets that are then given to first responders, who then give them to victims of tragic events. We continue to help this organization with every year that passes because of its cause. 1741 has assisted this non-profit organization ever since the beginning of our team, and within 5 years our team has made approximately 300 blankets.



### **PBS Kids Day in the Park:**

Our team even partnered with PBS Kids and WFYI and we volunteered to dress up as PBS characters or be around the characters on August 21<sup>st</sup>. Many young kids got to see their favorite PBS characters and some of our team members volunteered to assist the people in the costumes. At that event we impacted roughly around 50 people.