

July 20, 2017



Dear SAS Families-

WOW!!! As we are still coming off of the celebration of our school's Ohio STEM School designation/certification success, we express sincere appreciation to Mrs. Cinadr, Father Bob and our incredible faculty and teaching staff for making this vision a true reality!! The door that this opens and the opportunities that will be present to our children/students will not only aid them in their academic pursuits, but will also equip them with life-long skills that they will carry into high school and beyond!

With that said, there have been many exciting STEM initiatives that have taken place on our campus. One of these initiatives (provided to us through the generosity of Rockwell Automation™, (one of our corporate sponsors)), is the First Lego League™ (FLL). FLL is a tremendous opportunity for our students to compete in an initiative based on robotics programming, critical thinking, and team building.

**What is First Lego League™ (FLL):**

FLL is an international initiative! According to statistics offered by the organization, there have been 255,000 students, 32,000 teams and 88 countries that have participated in FLL to date! Taken from the FLL website is the following description:

“Guided by adult Coaches, *FIRST* LEGO League teams research a real-world problem such as food safety, recycling, energy, etc., and are challenged to develop a solution. They also must design, build, program a robot using LEGO MINDSTORMS® technology, then compete on a table-top playing field.

It all adds up to tons of fun while they learn to apply science, technology, engineering, and math concepts (STEM), plus a big dose of imagination, to solve a problem. Along their discovery journey, they develop critical thinking and team-building skills, basic STEM applications, and even presentation skills, as they must present their solutions with a dash of creativity to judges. They also practice the Program's signature Core Values.”

### **What is FLL at Saint Ambrose School:**

Last year, Saint Ambrose had six children (5 families) that spear-headed the FLL initiative at Saint Ambrose School. They formed a team called the AngelBots. This student-run team effectively built and designed an EV3 MindStorm robot and then programmed the robot to meet the challenges stipulated by the FLL's 2016 Challenge Team. They competed against a dozen plus teams in Akron and had an impressive showing for their first year, despite being the youngest team on record at this particular competition! In addition to their work with the robot, this team also spent a number of hours researching the reciprocal aid that humans and animals provide to each other and brainstorming ideas for how robots could be used to facilitate this exchange. The children walked away from this experience with new skills and elevated confidence in their abilities!

### **Where We Would Like to See FLL at Saint Ambrose School in 2017-2018:**

Currently, FLL is in its infancy stage at Saint Ambrose. As such, we are looking to slowly grow this initiative in a strategic, methodical fashion, ensuring that our children and coaches have the necessary resources to be successful! This year, we are hoping to retain our AngelBot FLL Team as well as add a **FLL Junior™ team**. As this is the stepping stone to FLL, the FLL Junior™ league operates in a very similar fashion to FLL but is for **ages 6-10**.

The attached description is provided by the FLL Junior™ organization:

**“FIRST LEGO League Jr. presents a new and exciting Challenge to ignite the creativity of children age 6 to 10. Each team of up to 6 children begins the exploration of this real-world theme with an exclusive LEGO® Education Inspire Model. Using this model as a starting point, they design a new model of their own with LEGO® elements. As they work, they learn basic engineering and programming skills with LEGO® Education WeDo and apply those concepts to make their model move. Teams also document their work in an Engineering Notebook and share their journey through a team *Show Me* Poster. Throughout their experience, teams operate under the FIRST LEGO League Jr. Core Values, celebrating discovery, teamwork, and *Gracious Professionalism*®”**

### **Commitment of Your Student and Your Family:**

The commitment to FLL™ and FLL Junior™ is a family one. Although the students are expected to run every facet of this program, the support of the team coach and family in helping to mentor the children is vital. Please be assured, however, that parents are not required to have any programming/computer skills. They just need to ensure that their children make meeting times and stay on task. The time commitment is typically between 3-4 hours a week/ one to two days a week during the months of later August through December. During this 3-4 hours weekly, the children design and build the robot, set up the challenge table and begin to program the robot to meet the stipulated challenges. Additional time (beyond the 3-4 weekly hours) may be required to do research, design a poster and hone presentation skills. These activities are mostly completed as a team. Typically, additional hours are required the closer the team



