

Robot Extravaganza 2017

Robotic Technology in your Community

The world needs the students of today to become the scientists, engineers, and problem solving leaders of tomorrow. Science constantly presents us with new breakthroughs and challenges, creating greater opportunities for problem solving through technology. The solutions to these problems could help change the world, and technology-based problem solvers will be the people to make it all possible.

This year the Robot Extravaganza theme focuses on **Robotic Technology in your Community**. Students are encouraged to think about how Robotic Technology is being used in areas they encounter on a daily basis either now or far into the future. Teams will develop and construct prototypes of their proposed inventions and solutions. If teams need direction to narrow down their research, the following list provides suggestions:

- How robotic technology is being used in the healthcare industry
 - Distribution of medication, surgical procedures, and research
- How robotic technology is used in farming, and food production industry
 - How to apply robotics technology in harvesting, packaging, or distributing food
- How robotic technology is used in the manufacturing industry
 - How technology is used in the invention and production of goods
- How robotic technology is used in the arts and entertainment industry
 - Production and distribution of art, music, video and live entertainment
- How robotic technology is used in the field of communication
 - What forms of communication utilize or can utilize robotic technology
- How and where robotic technology is found in the transportation industry
 - How new forms of transportation can utilize robotic technology in the future
- How robotic technology is used in education
 - How robotic technology can help students learn
- How technology and robotics are being used to assist people with special needs
 - How robotic technology has helped people or what new technology is needed

The Rules

1. Choose a theme for your project and demonstration.
2. Create team(s) -- if you are a:
 - a. 6 – 8th grade group, your demonstration needs to fit on a 6ft diameter round table
 - b. 3 – 5th grade group, your demonstration needs to fit on a 4ft by 2ft table
 - c. k -2nd grade group, your demonstration needs to fit on half a 6ft by 2ft table (3ft by 2ft) space

Each school will get 1 table top per age group for a maximum of 3 table tops.

3. You may use any material you have, string, tape, cardboard, paper mache, wood, duct tape, wire, plastic, recyclables, gizmos, more duct tape and ... ??? be creative! Students in 6 – 8th grade should include a true Robotic component, such as VEX IQ, EV3, Arduino, those in 3rd – 5th grade are highly encourages to include a robotics component.
4. Projects which include robotics systems like VEX IQ, EV3 or Arduino should be programmed without using a remote control. Think of using multiple and have them interact! Have fun and most important, BE CREATIVE!!! Keep making your programming cooler and cooler as you go. Make us wonder how in the world you got your robot to do that!!

Most important, have fun, dazzle us, invent the future, make us wonder how did they do that! Dress things up, interact with your invention – become part of the demonstration, in short dazzle us, make an one-of-a-kind amazing invention!