



# Spartan LEGO Robotics - Commuter

6/16- 20, 6/23-27

## Audience

Two separate sessions throughout the summer were attended by 49 total participants. Students were in the 4<sup>th</sup> through 8<sup>th</sup> grade. Most of the students came from mid-Michigan as this was a Commuter Camp. There were no requirements to attend.

## Funding

Participants paid a fee of \$275. This fee pays for the use of the NXT LEGO Mindstorms Robot, the VEX IQ Robot, NXTG software, Modkit software and use of a computer..

## Objectives

The program goals are to:

Apply **STEM** (Science, Technology, Engineering and Math) knowledge to solve problems

- Students have fun while learning to build with LEGOS and VEX IQ robot platforms
- Build Teamwork and communication skills
- Develop problem-solving skills
- Learn about robots and what they do.
- Build LEGO NXT robot and program using NXTG programming language.
- Build VEX IQ Robot and program with Modkit programming language
- Apply STEM(Science, Technology, Engineering and Math) knowledge to solve problems

## Description

This program is designed for students interested in exploring engineering and focuses on problem identification, team-building, communication, programming and competition using the NXT Robotics Invention System and the VEX IQ Robotic System.



## Outcomes

All Students build a LEGO Mindstorms NXT Tribot. Students learn to program the robot to move, and respond to 4 sensors (Light, Touch, Sound & Ultrasonic) Once they have mastered the basics, they are given the challenge to revise their robot to solve challenges from the 2012 First LEGO League..

- Had fun while learning
- Knowledge of what robots do
- Engineering concepts of problem solving
- Learning to work in teams
- Development of problem solving skills

## Contact Information

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