FIRSTEP CAMP INTRODUCTION

The FIRSTEP Summer Camp was created by the **Carmel High School TechHOUNDS Robotics Team** to lead younger students with interests in **science** and **technology** on their **"first step"** in learning more about these growing fields. This camp was first introduced in the summer of 2007 with a goal of extending our knowledge to younger students—and possibly future members of the TechHOUNDS Robotics Team.

From **designing** to **building** and **working with tools** in the robotics shop, this program teaches students the basic skills used by TechHOUNDS team members, useful for high school and beyond.

1   ACTIVITIES

Our two-week summer camp is back! **All grade levels listed are just suggestions and there are no pre-requisites for any session.**

LEGO SIMULATOR   Grades 1—8

Lego Digital Designer (LDD), a fun and educational computer program, gives students their **first experience creating a 3-dimensional model** on the computer **before even picking up a Lego brick.** Students will learn the basics of sketching and modeling and will be given competition-like tasks.

LEGO CHALLENGE   Grades 1—8

Take the next step forward after Lego Simulator by building a Lego robot that will complete **specially designed tasks**. This challenge develops **building skills** through **teamwork** and teaches basic **programming skills** using an intuitive drag-and-drop method of programming using *Lego Mindstorms 2.0.* Students will work in groups with a student mentor to assist them in competing in a series of tasks with a Lego robot.

INVENTOR   Grades 5—8

Learn how to use Autodesk Inventor, a program used by **professional engineers** in the real world to create detailed models. This software is also taught in the **Introduction to Engineering and Design** class at Carmel High School. From learning how to make a basic cube to replicating physical objects, students will gain a fundamental understanding of design and modeling. Inventor is also the same software the TechHOUNDS use to design their robot each year before they ever start building it.
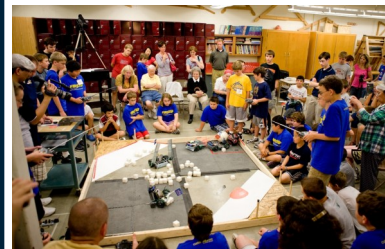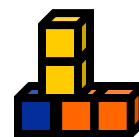
VEX CHALLENGE   Grades 5—8

The **TechHOUNDS** build a robot from scratch in six weeks every year to compete in a complex game. This challenge gives students a first-hand experience of what we do for a robotics competition in a **scaled-down version**. Students will receive one week to create a **remote-control** robot that will play in specially-designed games. They will experience the same **brainstorming process**, **design phases**, **prototyping**, and **competing** as the TechHOUNDS do. Thus, this challenge is beneficial for students wanting to join the Robotics Team when they come to high school, as well as those who wish to be exposed to an energetic learning environment. Students will work together in groups with a student mentor building their VEX robot.

FIRSTEP
Youth Educational Program

2 | GENERAL INFORMATION

Student Name Grade for 2011-12 year

_____

_____

_____

Parent Name

_____

Parent E-mail

_____

Address

_____

_____

_____

Phone

_____

Alternate Phone

_____

Medical/Emergency

Concerns: _____

_____

Emergency Contact:_____

Relation: _____

Phone: _____

Please visit our website

www.TechHOUNDS.com

for more information about our Robotics Team, details about FIRSTEP, and so much more!

3 | ACTIVITIES REGISTRATION

Please check the box corresponding to the desired week and activity.

Mail completed **registration form, general information**, and **payment** to:

Carmel High School, Attn: George Giltner
520 East Main Street
Carmel, IN 46032
or give these forms/payment to your respective
Middle School Technology Teacher.

Activity	Time	Cost	Week 1	Week 2
Lego Simulator	8:00-8:45	$50		
Lego Challenge	9:00-10:45	$75		
Inventor	11:00-11:45	$50		
VEX Challenge	12:00-2:00	$85		
Please make checks payable to *"Carmel High School TechHOUNDS"*.	T-Shirt (Youth XS-XL and Adult S-XL)	$10	Quantity: Size(s):	
	Total Price			

CHS TECHHOUNDS ROBOTICS TEAM

MAIN CONTACT

George Giltner, Faculty Team Lead and Industrial Technology Teacher

ggiltner@ccs.k12.in.us

(317) 846-7721 ext. 7054

ADDRESS

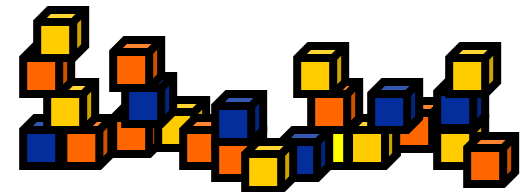**Carmel High School**
520 East Main Street
Carmel, IN 46032