

[APPLY ONLINE \(CLICK HERE\)](#)

**Registration deadline: May 31, 2014**

**You can submit this application by mail, or in person to:**

El Camino College, Ind. & Tech. Division, TECH 102, 16007

Crenshaw Blvd. Torrance, CA 90506 — Phone: (310) 660-3600

THE START PROGRAM 2014 APPLICATION		
First Name (PLEASE PRINT CLEARLY):		Last Name (PLEASE PRINT CLEARLY):
SIGNATURE (under 18 parent signature required):		
Address:		
City:		Zip Code:
Phone (Day or Cell):		Phone (Evening):
Email (PLEASE PRINT CLEARLY):		
Name of High School: _____		
Graduation Year: _____		
Have you taken Principles of Engineering (POE), Introduction to Engineering Design (IED) or participated in FIRST Robotics or any STEM course? YES / NO If Yes, which one(s): _____		
How did you hear about the START program? <input type="checkbox"/> Teacher <input type="checkbox"/> Friend <input type="checkbox"/> Flyer <input type="checkbox"/> Poster <input type="checkbox"/> Web page <input type="checkbox"/> Other: _____		
ECC Student ID Number:		
Please include with your Application <i>no more than</i> a one-page letter describing why you are interested in participating in this program and any STEM interests you may have at this time (500 words or less).		
<div>(Office use only)</div> <div>           Confirmation sent: <input type="checkbox"/> Yes    Application processed: <input type="checkbox"/> Yes    Revised: April 22, 2014         </div>		

The El Camino Community College District is committed to providing equal opportunity in which no person is subjected to discrimination on the basis of ethnic group identification, national origin, religion, age, sex, race, color, ancestry, sexual orientation, physical or mental disability, or retaliation.



**EL CAMINO COLLEGE**

Division of Industry and Technology

**STEM PROGRAM**

**The START Program**

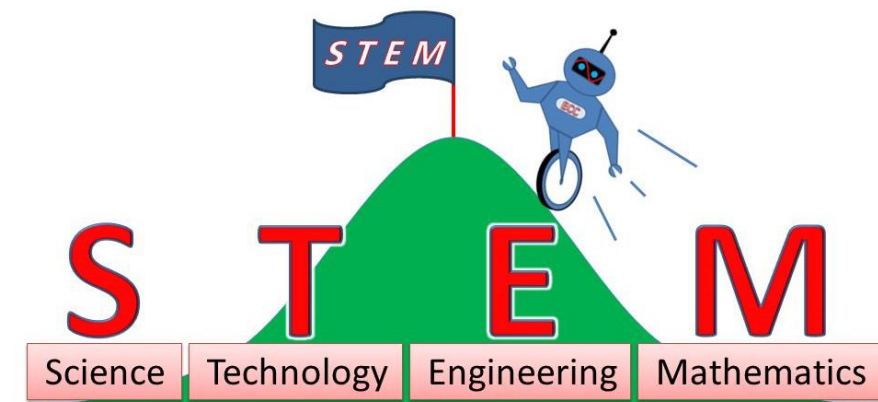
**STEM Training and Robotics Technology**

**Career Pathways  
and  
Robot Building Experience**

**SUMMER 2014**

**July 7 through July 31**

Monday through Friday 9 a.m. to 1 p.m. Room # TECH 153



**The START Program is your start to a STEM career**

## PROGRAM DETAILS

PURPOSE	Inspire, highlight and create awareness of career pathways, opportunities and education spanning Science, Technology, Engineering and Math (STEM). Develop critical, creative and innovative reasoning skills. Design and build a VEX robot for class competition.
DESIGN	A hands-on, rapid, rewarding project based program. Encourages student interest in a STEM education. Develops a student's ability to achieve a STEM career.
DEPARTMENTS	Computer Aided Design/Drafting Electronics / Computer Hardware Technology Engineering Technology Manufacturing / Machine Tool Technology
ELIGIBILITY	Open to all El Camino College and high school students enrolled in El Camino College by May 31, 2014. No prerequisite course required to participate.
COST	FREE: Funding provided by a HSI STEM grant
SCHEDULE	July 7, 2014 through July 31, 2014 Monday through Friday (Friday field trips) 9:00 a.m. to 1:00 p.m.
LOCATION	El Camino College, 16007 Crenshaw Blvd. Torrance, CA Technical Arts building, Room # TECH 153
APPLICANTS	Student selection results will be sent to all applicants by email Friday, June 6, 2014 (class seating is limited). <b>Registration deadline: May 31, 2014.</b>
COORDINATOR	Glen Chapple, email: gchapple@elcamino.edu UCLA Electrical Engineering, ECC Mathematics Alumnus
<ul style="list-style-type: none"> <li>◆ Students will learn to solve problems and develop solutions used in real-world applications found in day-to-day life and the workplace</li> <li>◆ Students will gain hands-on experience, critical thinking skills and good interpersonal abilities sought by technical industry today</li> <li>◆ Students will learn to understand and be able to articulate the interdisciplinary aspects of STEM used in technical industry today</li> <li>◆ Students will learn that science and mathematics are foundational, and engineering and technology add value to those foundations</li> </ul> <p>Are you ready to <b>START</b>? We are ready to start helping you!</p>	

## PROGRAM OUTLINE

<p><b>Week 1</b></p> <ul style="list-style-type: none"> <li>• Introduction to robotics and robot design</li> <li>• "Magic of Science" presentation</li> <li>• Science topics</li> <li>• Measurements, units and conversion factors</li> <li>• Principles of Engineering (POE)</li> <li>• Computer Hardware Technology</li> <li>• "Electromagnet" project</li> </ul>
<p><b>Week 2</b></p> <ul style="list-style-type: none"> <li>• Robot motion, power and sensors</li> <li>• Introduction to Engineering Design (IED)</li> <li>• Computer Aided Design/Drafting (CADD)</li> <li>• Electronics</li> <li>• Computer Integrated Manufacturing (CIM)</li> <li>• Manufacturing Technology</li> <li>• "Electric Telegraph" project</li> </ul>
<p><b>Week 3</b></p> <ul style="list-style-type: none"> <li>• Robot control, logic and programming</li> <li>• Engineering Design and Development (EDD)</li> <li>• Machine Tool Technology (MTT)</li> <li>• Engineering topics</li> <li>• Mathematics topics</li> <li>• College tours and speakers</li> <li>• "Electric Motor" project</li> </ul>
<p><b>Week 4</b></p> <ul style="list-style-type: none"> <li>• Robot testing and practice for competition</li> <li>• Robotics PowerPoint presentations</li> <li>• Robotics team competition and awards</li> <li>• Industry tours and speaker</li> <li>• STEM education success tips</li> <li>• STEM career pathways</li> <li>• Certificate of completion awards</li> </ul>

Scan this QR code to visit us, or go online to:

[www.elcamino.edu/academics/indtech/start](http://www.elcamino.edu/academics/indtech/start)

