Program-Title QuickStart / Project Lead the Way / Robotics **STEM Inventory**

Entry# 305

CTE | Higher-Education-based | Government-based Org-Type

El Camino College David Gonzales Lead

PoC-Phone 310-973-3170 PoC-Email dgonzales@elcamino.edu

Address 13430 Hawthorne Blvd Hawthorne, CA 90250

http://www.PLTW.org/index.cfm URI

Southern California Service-Region

Professional Development for Teachers | Student Program Type

Subjects General Science | Math | Computer Science | Engineering | Robotics | Technology

High School (9-12th grade) Level

Other-Objectives Hands-on instruction directly linked to a variety of career paths in engineering, technology and manufacturing to keep students

interested and in school while creating a pipeline of new technical workers to support the critical manufacturing base in the L.A. regior

Demographics Served-per-Year 1200

Content The project utilizes Project Lead the Way curricula, a nationally recognized pre-engineering program. PLTW is a 501(c)(3) non-profit

corporation with the goal of growing the nation's technology workforce. The high school pre-engineering curricula it has developed is standards based rigorous and relevant program utilizing hands-on project based learning that also strengthens the core academic curricula while leading to 2-year and 4-year degrees. Its foundation course, Principles of Engineering, is a project based course that teaches engineering, materials science, structural design, applied physics, automation/robotics, embedded processors, drafting and design. El Camino College has 5 engineering technology courses that parallel the PLTW courses: Principles of Engineering Technology, Introduction to Engineering Design, Electronics for engineering Technologists, Computer Integrated Manufacturing, and Engineering Design and Development. El Camino College also provides Robotics courses that teach students basic design, fabrication, assembly, an prototyping skills and that prepare them for robotics competitions. Several high schools have participated in the FIRST Robotics

Competition in the past few years.

Prepare future engineering and technicians with a relevant and project based curricula that will help them succeed in college and Outcomes

university engineering programs.

Started 6-Jun Funded-Through 9-Dec

One-time \$750,000 Length Cost **Primary-Funding** Primary-\$ 100%

Materials Robotics kits, course materials, PCs, equipment, instructor training including travel.

Other-Funding None

Exams and observation How-Assessed

Government

Yes. PLTW supports STEM education by having the high school students participate in a hands-on, activity oriented program that Best-Practice-Why

utilizes team efforts. The courses, which include Computer Integrated Manufacturing and Principles of Engineering complement math and science college preparatory programs to establish a solid background in engineering and technology. PLTW takes mathematics and science out of the confined realm textbooks and into the challenges of the real world, demonstrating to students the endless

possibilities that are before them.

N/A **Promising-Practice**

Diane Woodruff Sponsor-Org CA Community College Chancellor's Office Sponsor

Sponsor-Phone 916.445.8752 Sponsor-Email info@cccco.edu

Other-Orgs Local high schools and community business partners.