

# Proposed Engineering Program for Garden City High School



**Presentation to the Board of Education -- January 2015**  
**by**  
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# ***Why Project Lead The Way (PLTW)?***

- Supports the District STEM initiative
- Nation's leading provider of STEM programs
- Project-based curriculum: students apply math and science to solve problems
- Rigorous training and strong technical support
- College credits and other student recognition opportunities
- <https://www.pltw.org/file/276>

# Participation Fee and Other Expenses

- Annual participation fee: \$3,000 per year
- Teacher training
- Access to computers
- Consumable supplies
- Equipment



# Implementing PLTW Engineering Program

- Pilot a sequence of courses that follows project and problem-based curriculum
- Minimum of 3 courses by the end of the 3<sup>rd</sup> year of implementation:
  - *Introduction to Engineering Design (IED)*
  - *Principles of Engineering (POE)*
  - *Any specialization course or the capstone course*



# PLTW Engineering Courses

## **Foundation courses:**

- Introduction to Engineering Design
- Principles of Engineering

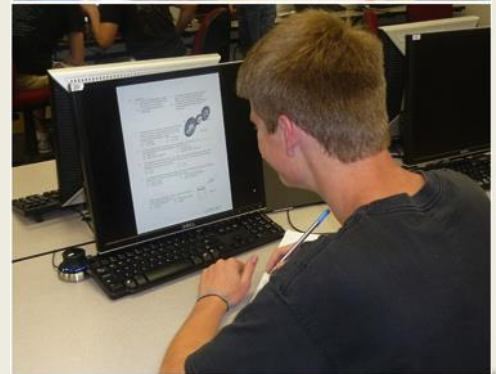
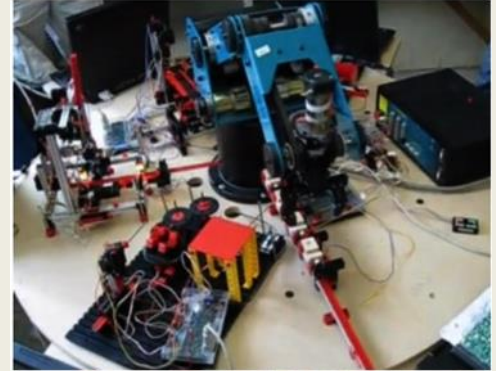
## **Specialization Courses:**

- Civil Engineering and Architecture
- Computer Integrated Manufacturing
- Engineering Design and Development
- Aerospace Engineering
- Digital Electronics
- Biological Engineering
- Computer Science and Software Engineering

# Proposed for Fall 2015: Introduction to Engineering Design

*Students use the design process and industry standard 3-D modeling software to design solutions to proposed problems*

- One period everyday
- Taken in addition to science courses
- Open to ALL freshmen and sophomores
- Pre-requisite to other PLTW courses
- Science or Art credit available



# Student Postsecondary Recognition Opportunities

- Colleges & universities ACTIVELY recruit PLTW students
- Colleges offer course credits, scholarships, admission preferences and advanced standing opportunities

# Benefits of an Engineering Experience

- Strong, positive impact on math and science achievement
- Develop teamwork and problem solving skills
- Master engineering software and tools used by the industry
- College and career ready
- <https://www.youtube.com/watch?v=yyDn9dXJ3MI>

