

Engineering/Design at Monarch High School

Class Offerings

- Design Technologies I
- Design Technologies II
- Drafting
- Robotics
- Architecture
- Industrial Design
- Web Design
- Advanced Web Design



Suggested Sequence

Freshman year:
Design Tech I

Sophomore Year:
Drafting/Design Tech II

Junior/Senior Year:
Robotics/Architecture/
Industrial Design/Design
Tech II

Design Tech I and Design Tech II can be repeated for credit

Web Design can be taken at any time

<http://www.davincilab.org>

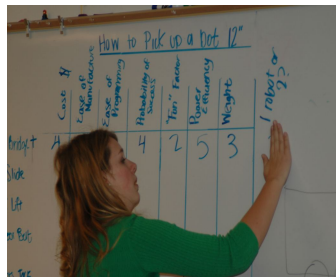
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Pre-engineering classes

Students at Monarch High School have the opportunity to develop skills in a variety of engineering and design disciplines.

Design Technologies I allows students to experience a number of design technologies including animation, architectural and mechanical CAD, CNC milling, robotics and more. Students may then continue onto Design Technologies II to explore any of these fields in depth.

For students serious about acquiring design skills, drafting is the place to start. In drafting students use SolidWorks, an industry standard 3D modeling and design program widely used in engineering programs around the country including the Colorado School of



MHS Pre-engineering student Jenna develops a design matrix at the white board

Mines and the University of Colorado.

Upon completion of drafting students are eligible to continue onto upper level design classes including robotics, architecture and industrial design.

Robotics explores the wonderful mechanical world of robotics including motors and sensor applications as well as some program-

ming.

Architecture allows students to explore the synthesis of art/history and technology that is architecture. We'll explore architecture through the ages as well as develop some CAD skills.

Industrial Design looks deeply into the design process including project management, quality control and risk management as it relates to product development.



Daniel Celebrates

Monarch High School FIRST Robotics (aka Shazbots)

All students at Monarch High School have the opportunity to join the Monarch High School FIRST robotics team. Working alongside professional engineers from local and national engineering firms such as Ball, Lockheed Martin, Sun and others, students



build complex robots during a six week period in January/



2006-07 Shazbots

February. Competition happens the last week in March at the University of Denver where the Shazbots pit themselves against other teams from around the nation. For

the 2007-08 school year we will be traveling to Atlanta in April to compete at the national Robotics Championship.

The competition changes every year, past challenges have included manipulating a variety of different shaped objects, shooting balls through hoops and hanging from a 10 foot bar.

<http://www.shazbots.org>