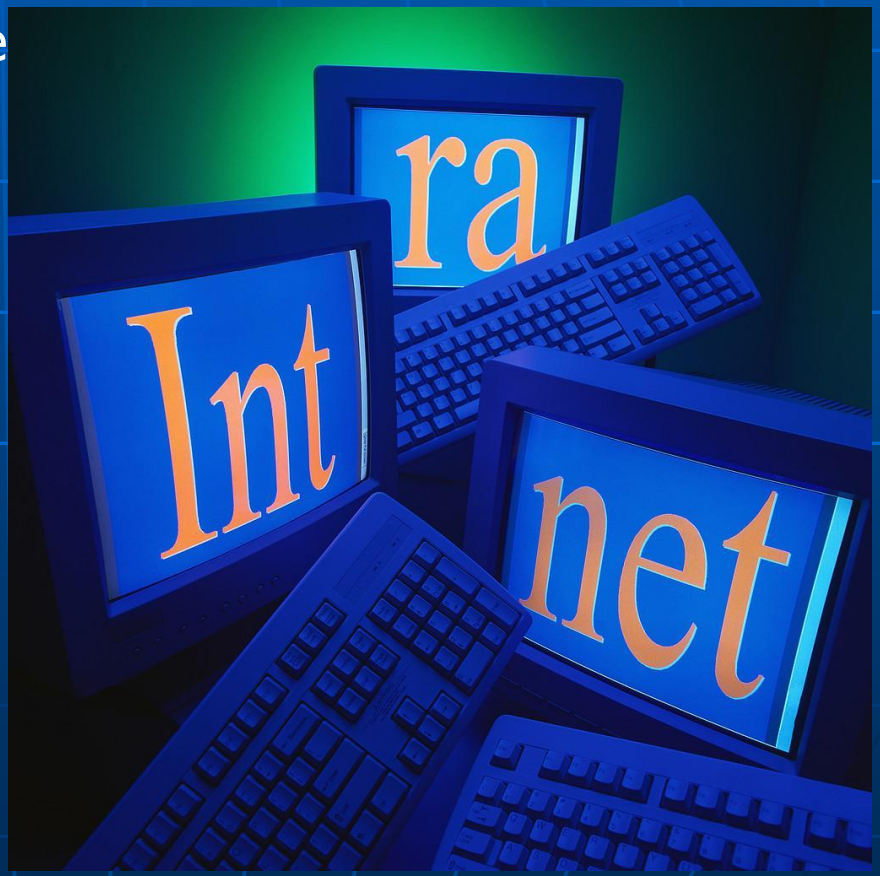
NEWFANE HIGH SCHOOL

ENGINEERING TECHNOLOGY

Instructor:
Mr. Kursten

Latest CAD Lab Technology

- New Computer Hardware and Software
  - 24” LCD Monitors and Ne CPU’s
  - 2024 AutoCAD
  - 2023 SolidWorks
  - Chief Architect x11
  - 3D Printers
  - 24” Color Plotters
  - New Laser Engraver
- Great Workshop for Hands-On Projects



Computer-Aided Drawing Course Offerings

- Design and Drawing for Production
  - DDP I and DDP II
- Architectural Drawing/Advanced Structure Design
- College Engineering Drawing

Hands-On Technology Course Offerings

- Production Systems & Manufacturing Systems
- Residential Construction & Materials Processing
- Land Transportation and Transportation Systems
- Electricity & Digital Electronics
- Robotics, (possibly Drones next year) & Principles of Engineering

DDP

- Entry Level Class
- Prerequisite to other CAD classes
- Learn CAD and Drafting Basics
- Use of AutoCAD software

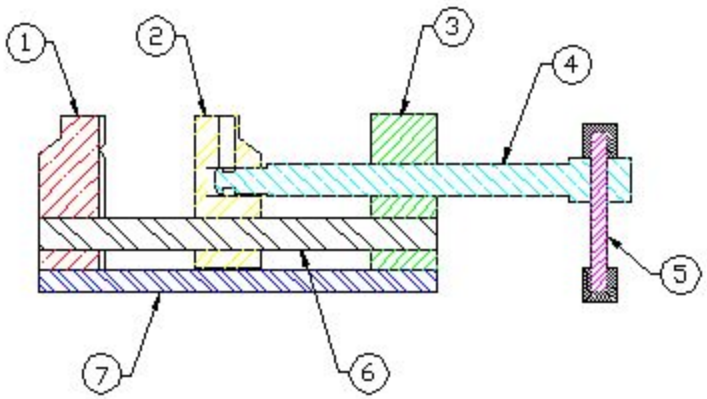
AutoCAD 2007 - EDUCATIONAL VERSION - [C:\Documents and Settings\hkursten\My Documents\DDP\AutoCadDwgs\DDP2 DWGS\Final Exam Dwgs\DD...

File Edit View Insert Format Tools Draw Dimension Modify Window Help Express

Standard Standard

AutoCAD Classic 0 ByLayer ByLayer

ITEM	QTY	DESCRIPTION	PART#	MATERIAL
1	1	STATIONARY JAW	FE1SJ	STEEL
2	1	MOVABLE JAW	FE1MJ	STEEL
3	1	GUIDE BLOCK	FE1GB	STEEL
4	1	THREADED ROD	FE1TR	STEEL
5	1	HANDLE WITH ENDS	FE1HWE	STEEL
6	2	GUIDE BAR	FE1GB	STEEL
7	1	BASE PLATE	FE1BP	STEEL



FNAME

REVDATE

USER

MINI VICE ASSEMBLY DRAWING

ACME VICE COMPANY

DRAWN BY: JOE COOL

BOSS MR. KURSTEN

SIZE DATE DWG NO. FE1FA REV

SCALE 1/1 BILL OF MATERIAL

Model Layout1 Layout2 Assembly DWG

r Autodesk licensed application.

ommand:

Communication Center

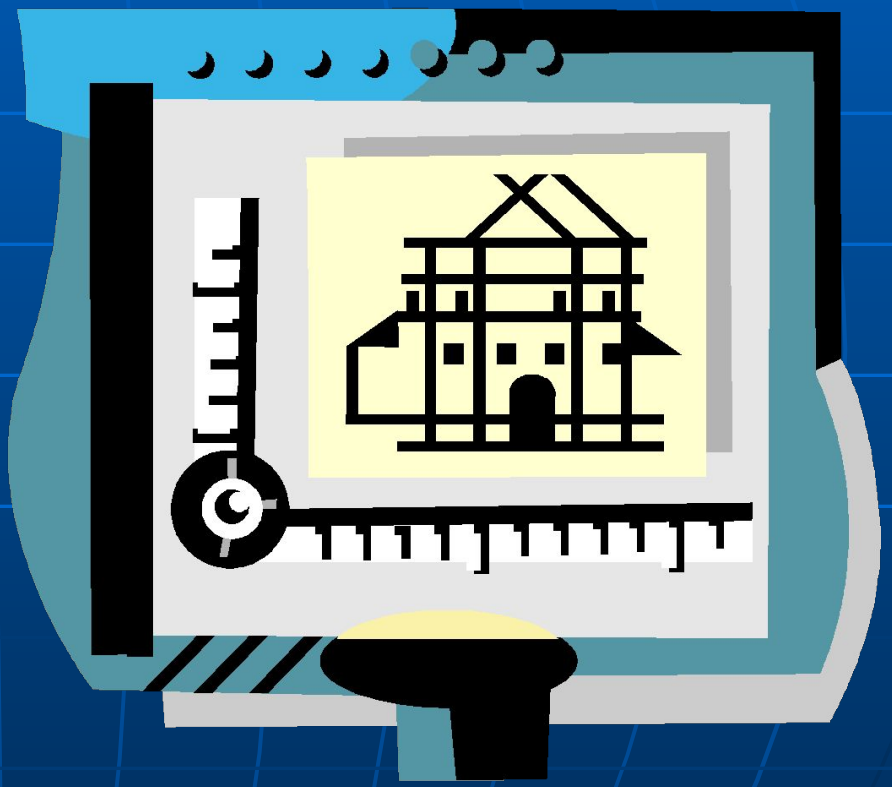
The easy way to keep you and your software up-to-date.

Click here.

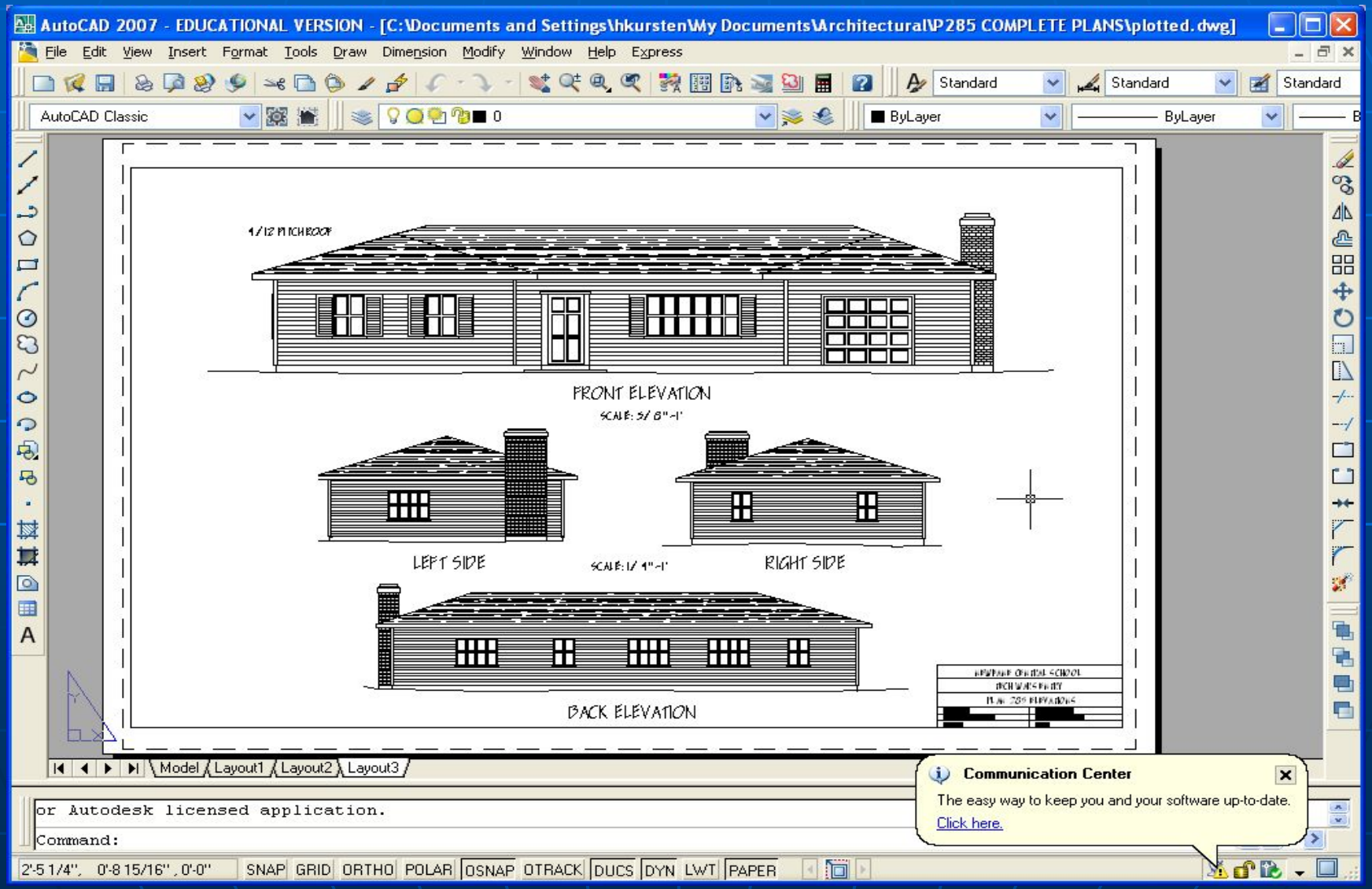
306, 8.6295 , 0.0000 SNAP GRID ORTHO POLAR OSNAP OTRACK DUCS DYN LWT PAPER

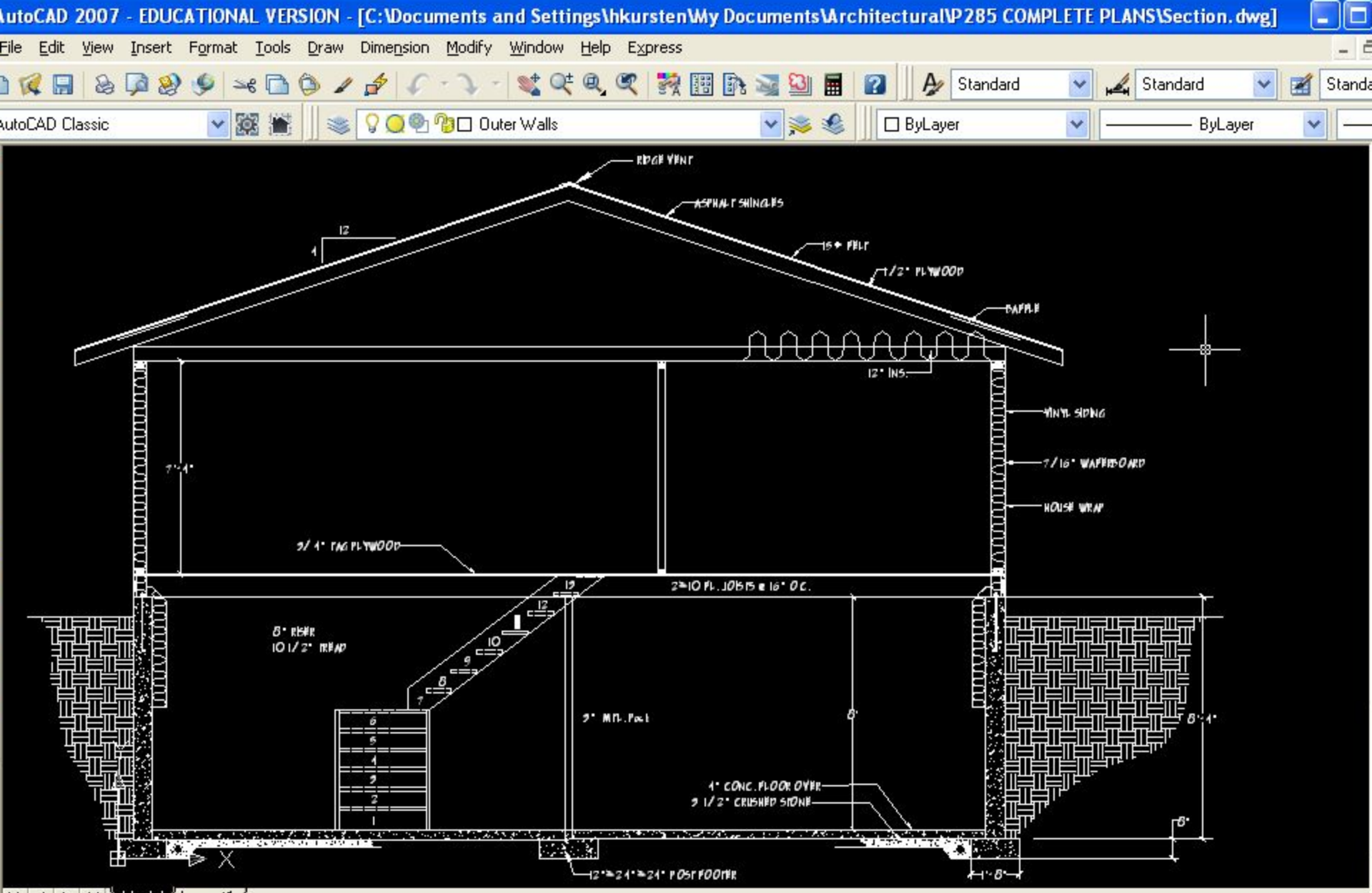
Architectural Drawing

- Second or Third Course
- Applied Use of Chief Architect 3D Modeling Program
- Process for Developing House Design
- Create Multi-Page House Plans and House Models
- Allows for Student Creativity and Design

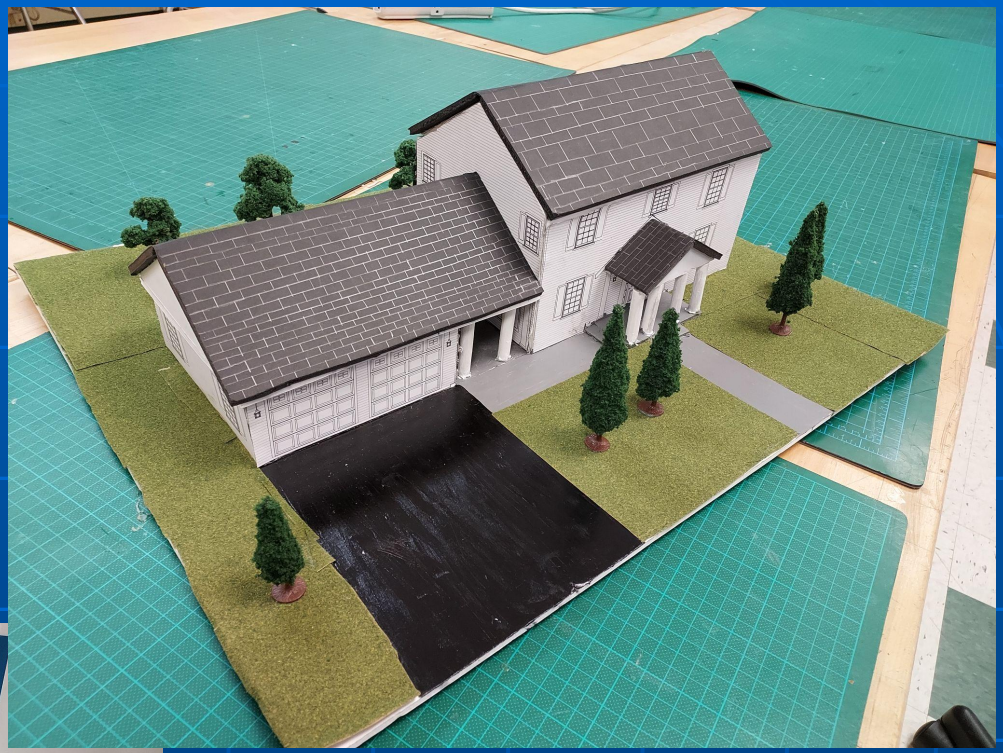


Architectural Drawings




RIDGE VENT
ASPHALT SHINGLES
15# FELT
1/2" PLYWOOD
BAFFLE
12" INS.
VINYL SIDING
7/16" WAFERBOARD
HOUSE WRAP
2"x10 FL. JOISTS @ 16" O.C.
8" REBAR
10 1/2" REBAR
4" CONC. FLOOR OVER
3 1/2" CRUSHED STONE
12"x24"x24" POST FOOTER
Model
Layout1
r Autodesk licensed application.
ommand:
4 5/8", 17'-5 15/16", 0'-0"
SNAP
GRID
ORTHO
POLAR
OSNAP
OTRACK
DUCS
DYN
LWT
MODEL

Architectural House Models

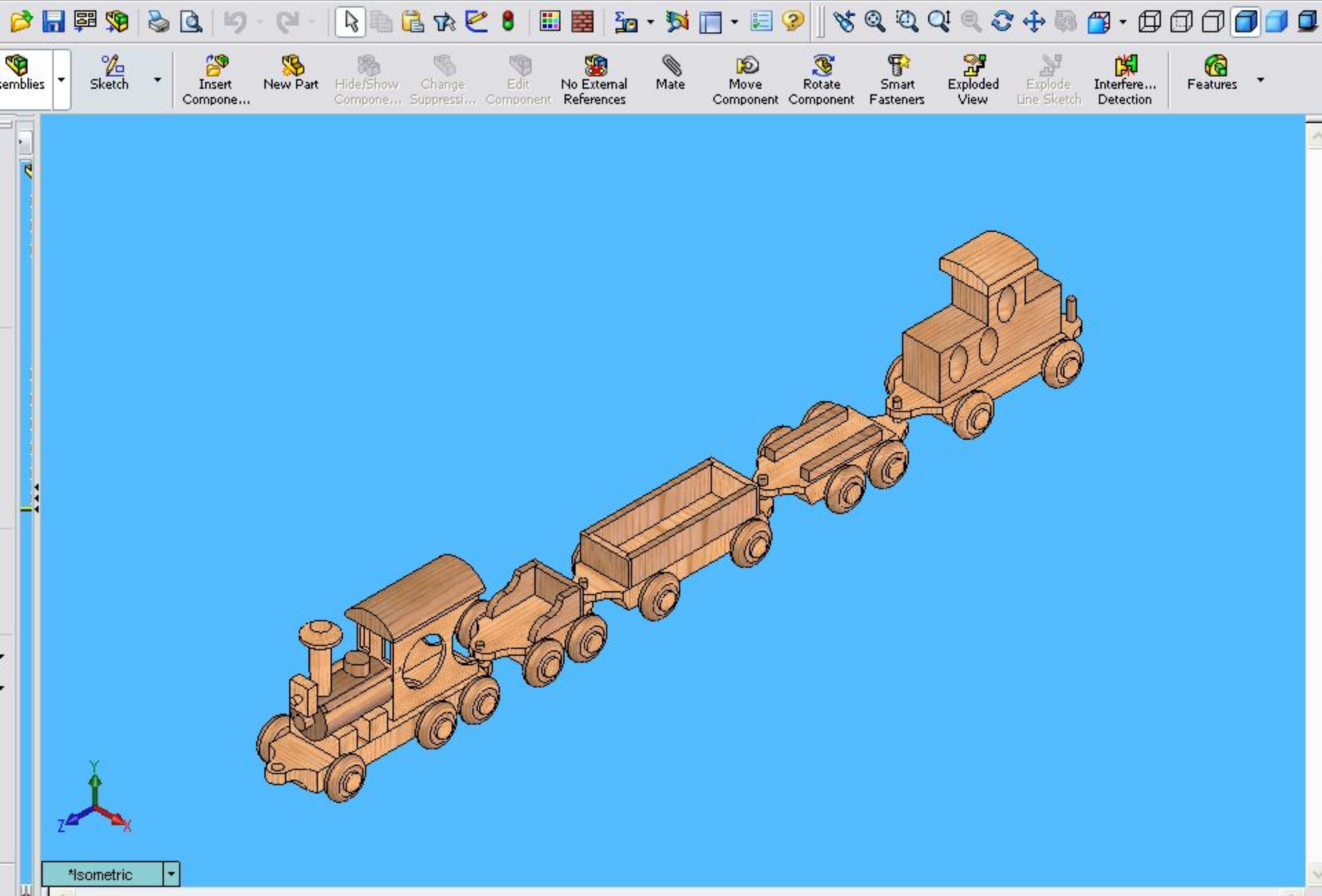


College Engineering Drawing

- Second or Third Course
- Professional SolidWorks 3D Parametric Modeling Software
- 3D Prototype Printing
- Allows for Student Creativity and Design
- Advanced Drawing Technique

SolidWorks Education Edition - Instructional Use Only - [TRAIN ASSEMBALLY ! alligned *]

File Edit View Insert Tools Window Help

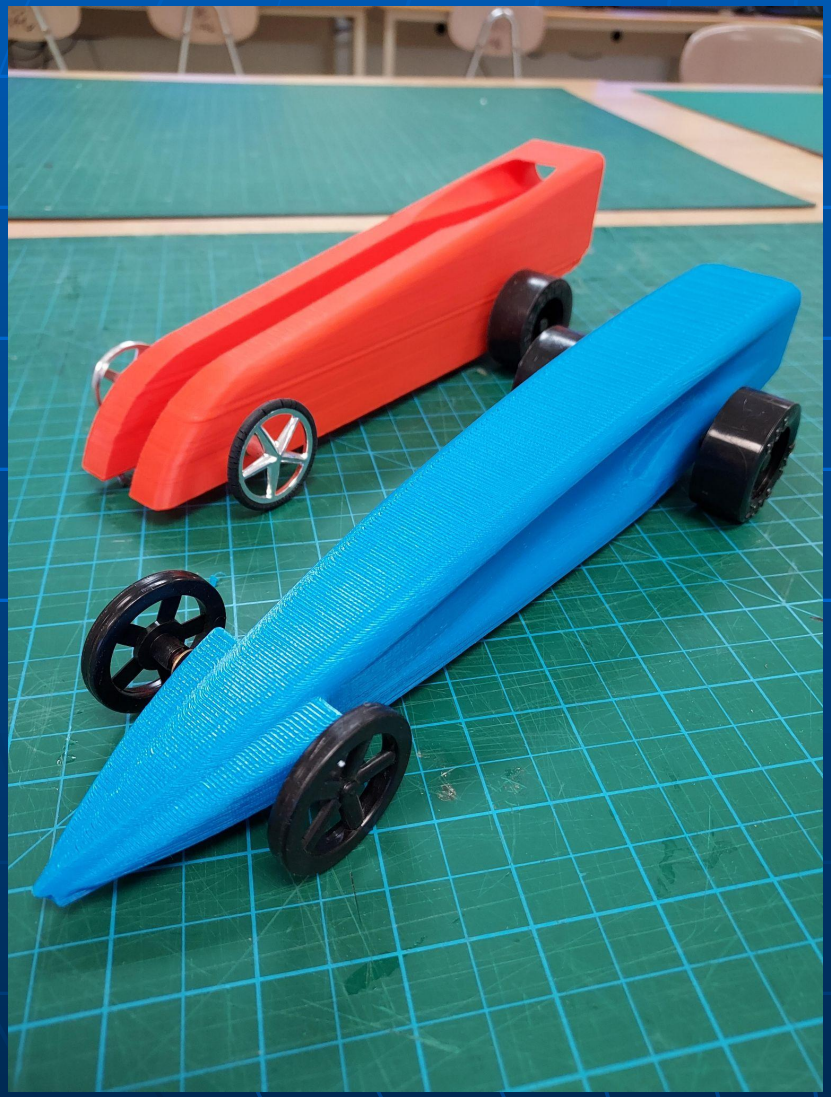


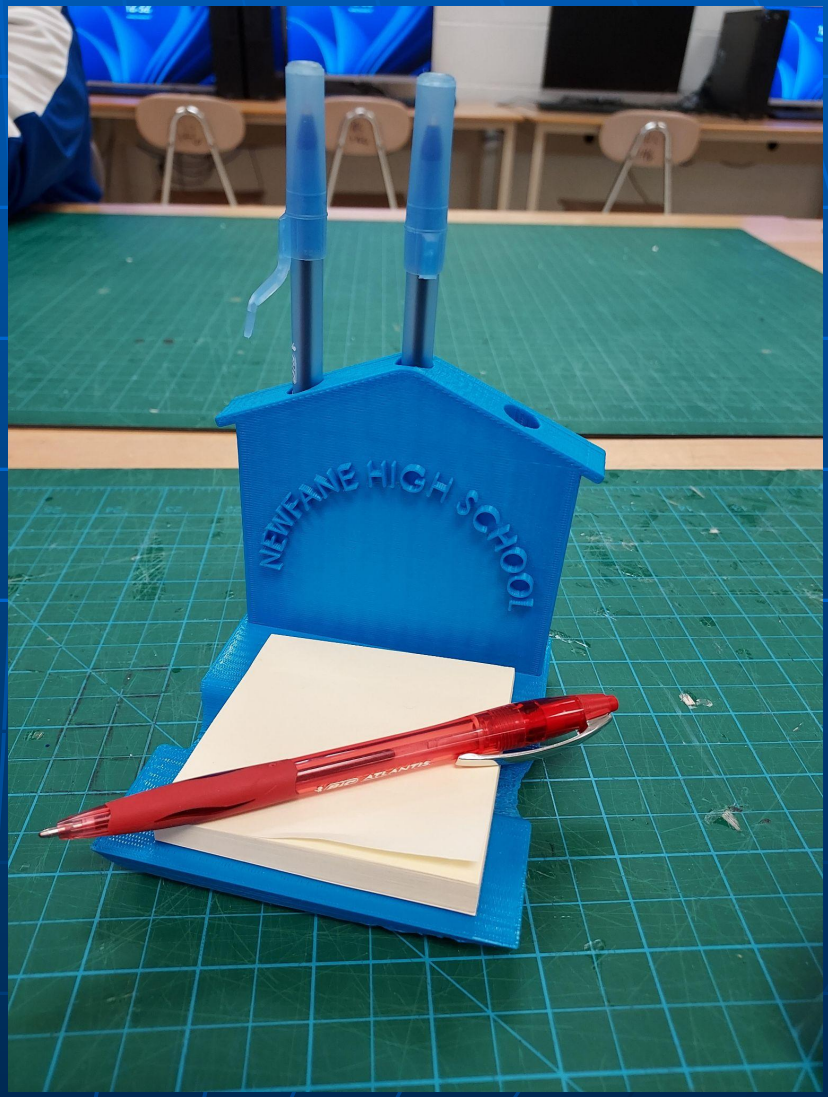
Fully Defined | Editing Assembly

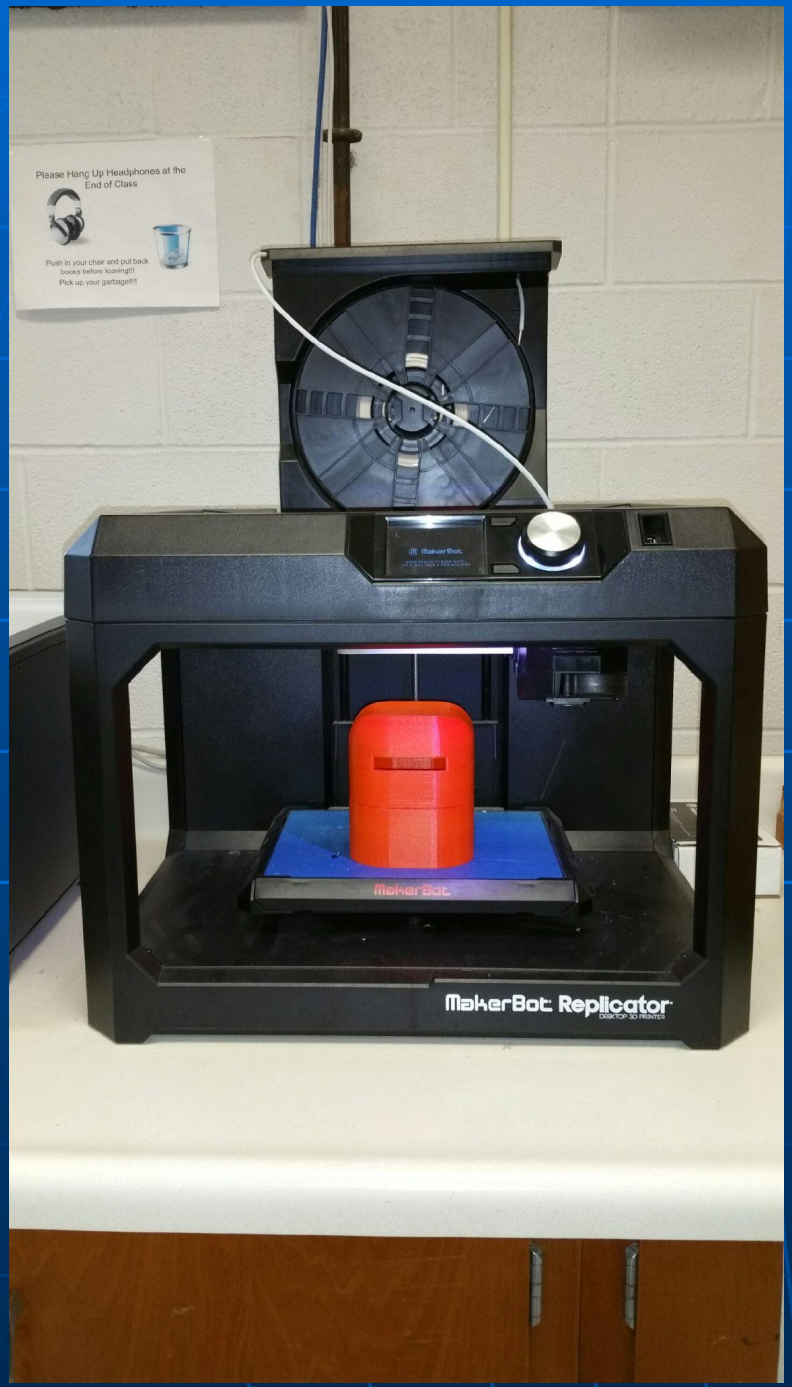
SolidWorks Education Edition - Instructional Use Only - [Pressure Plate - Sheet1]
File Edit View Insert Tools Window Help
Sketch
Annotations
Smart Dimension
Line
Rectangle
Circle
Centerpoint Arc
Tangent Arc
3 Point Arc
Sketch Fillet
Centerline
Spline
Point
Pressure Plate
Blocks
Design Binder
Design Journal.doc <Empty>
Annotations
Sheet1
Sheet Format1
Drawing View1
Section View A-A
Detail View B (1 : 1)
Drawing View4
Ø25 THRU (RD4)
6x Ø15 (RD3)
6x Ø27 (RD2)
Ø128 (RD1)
A
A
SECTION A-A
B
37 (RD1)
7 (RD2)
R2 (RD3)
DETAIL B
SCALE 1 : 1
NEWFANE HIGH SCHOOL
TITLE:
NAME:
PERIOD 1
DATE:
SIZE A
DWG. NO. Pressure Plate
REV
SCALE: 1:2
WEIGHT:
SHEET 1 OF 1
Sheet1
-4.08mm 162.75mm 0mm Under Defined Editing Sheet1 1 : 2

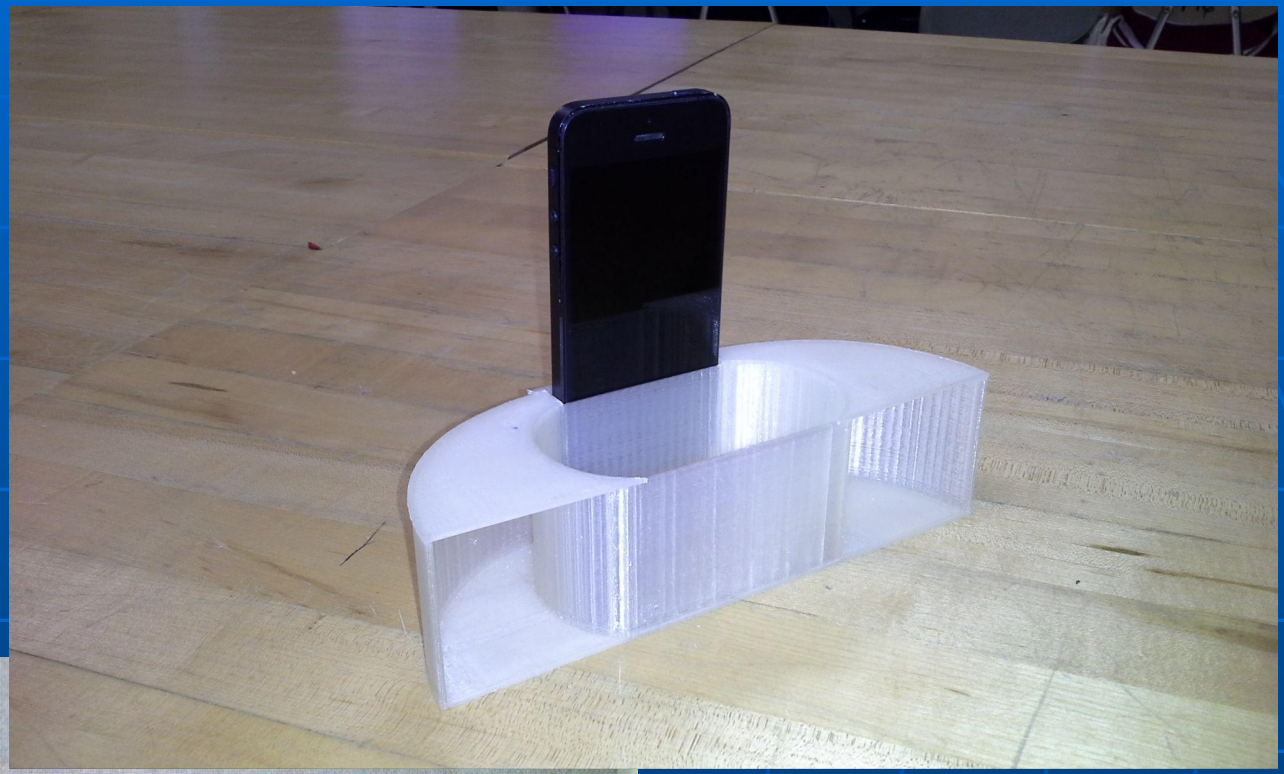
olidWorks Education Edition - Instructional Use Only - [pipe cutter tool - Sheet1]
File Edit View Insert Tools Window Help
Sketch
Annotations
Sketch
3D Sketch
Smart Dimension
Line
Rectangle
Circle
Centerpoint Arc
Tangent Arc
3 Point Arc
Sketch Fillet
Centerline
Spline
Point
Plane
pipe cutter tool
Design Binder
Design Journal.doc <Empt
Annotations
Blocks
Sheet1
Sheet Format1
Drawing View1
TITLE:
BRADY BARNES
5/16/06
PERIOD 1
SIZE
DWG. NO.
REV
pipe cutter tool
SCALE: 1:1
WEIGHT:
SHEET 1 OF 1
Sheet1
284.67mm
178mm
0mm
Under Defined
Editing Drawing View1
1 : 1

3D Printed Models






Please Hang Up Headphones at the End of Class
Push in your chair and put back books before leaving!!!
Pick up your garbage!!!
MakerBot
MakerBot Replicator
DESKTOP 3D PRINTER



NCCC Credits

- Students who carry 90% or above through two classes qualify for 2 NCCC credits.
- Students who carry 90% or above through three classes qualify for 5 NCCC credits.
- No Extra Cost to Students!!!
- May Take College Engineering Drawing for CAP Credit!

Production Systems

Build Cool Projects!

- Use Real Machines
- Wood Machine Toy Airplane Project
- Sheet Metal Tool Box
- Acrylic Candy Dish and Other Plastics Projects

Build Wooden Toys

Build Sheet Metal Toolboxes


FINAL SCORE:
FX NYTRO.ONE.
EST 1789
NORTH CAROLINA
UNITED STATES

Laser Etching

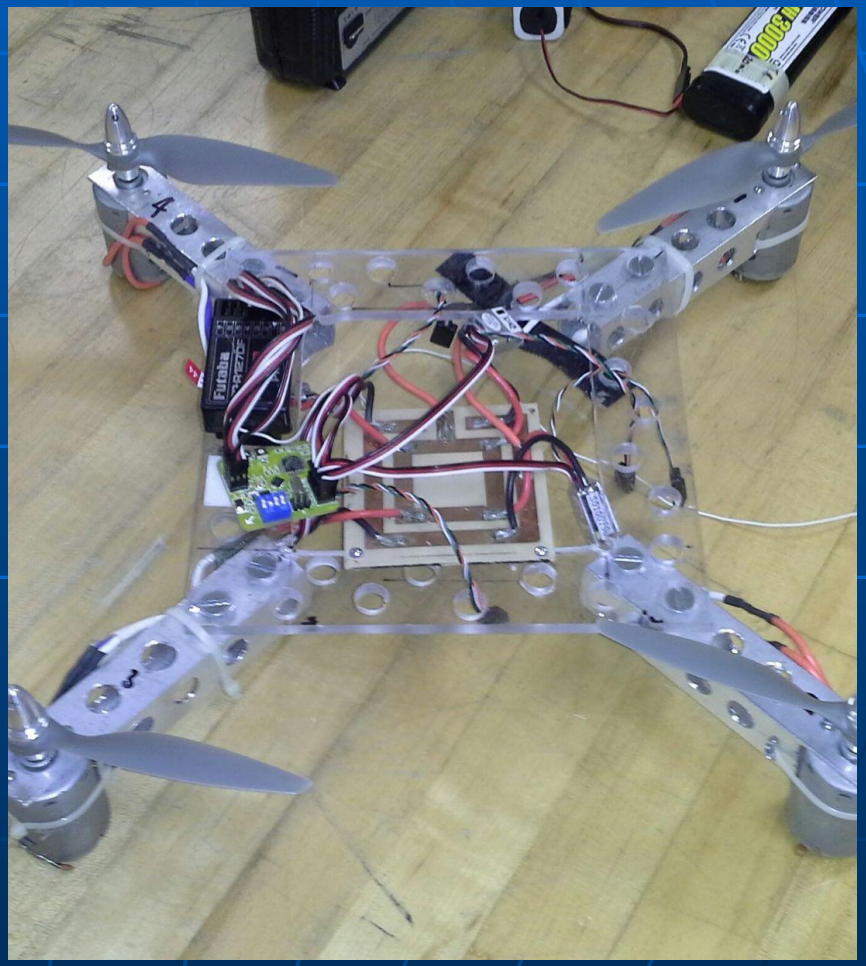

Panthers
N

Land & Transportation Systems

- Learn How Engines Work
- Build CO2 Cars to Race
- Build and Fly Radio Controlled Airplanes
- Design and Build R/C Snow Skimmers
- Design and Build R/C Cars from Scratch

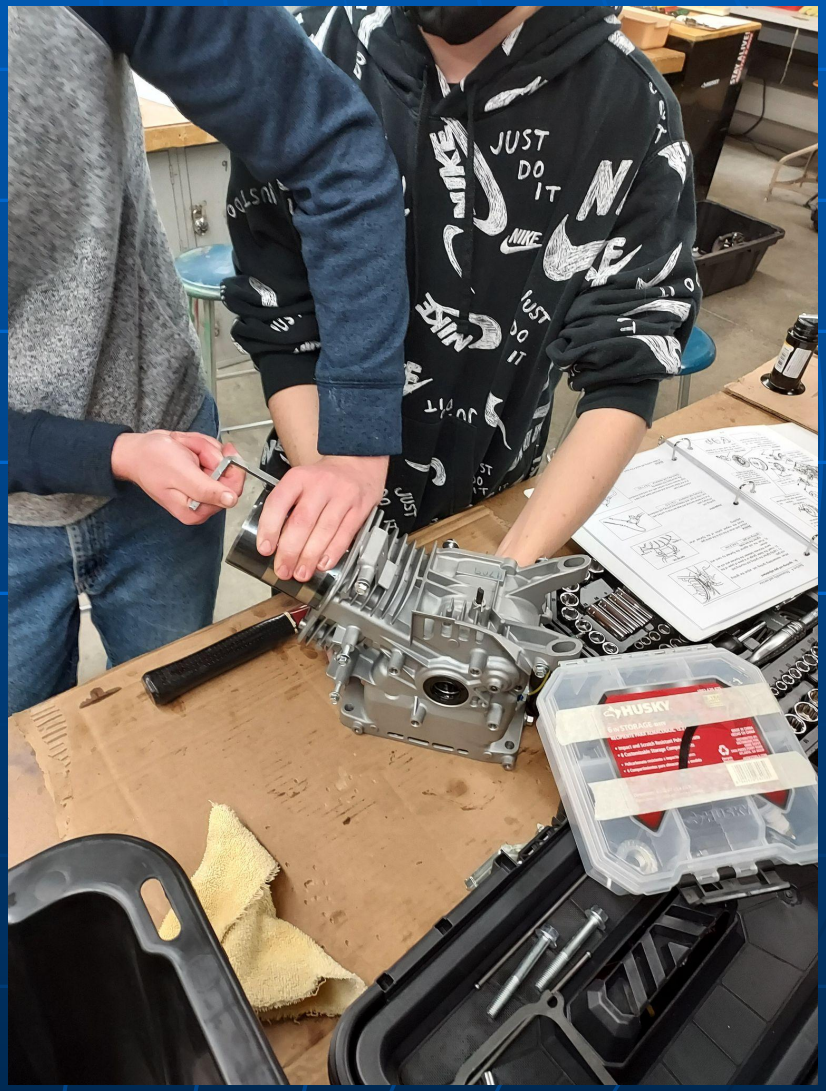
Build and Fly R/C Airplanes

Scratch Built R/C Projects



R/C Snow Skimmer

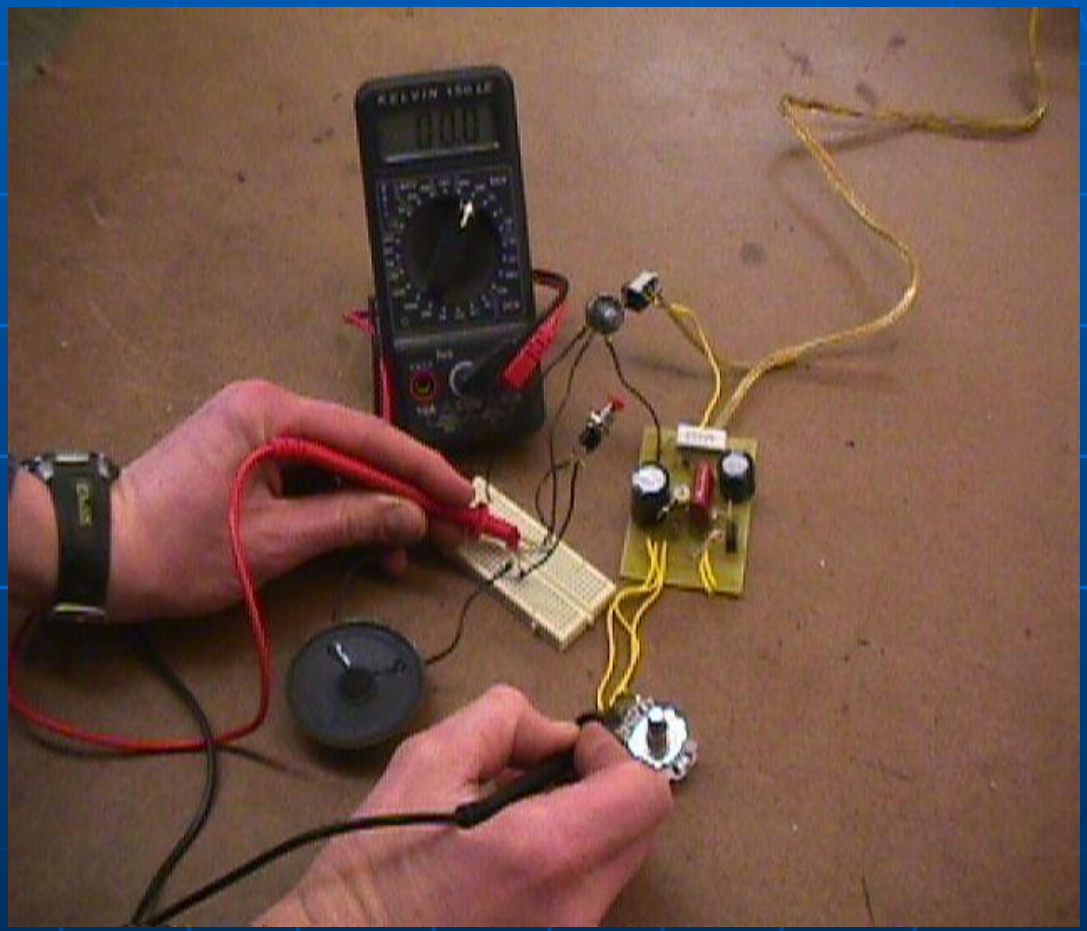
Engine Teardown/Assembly



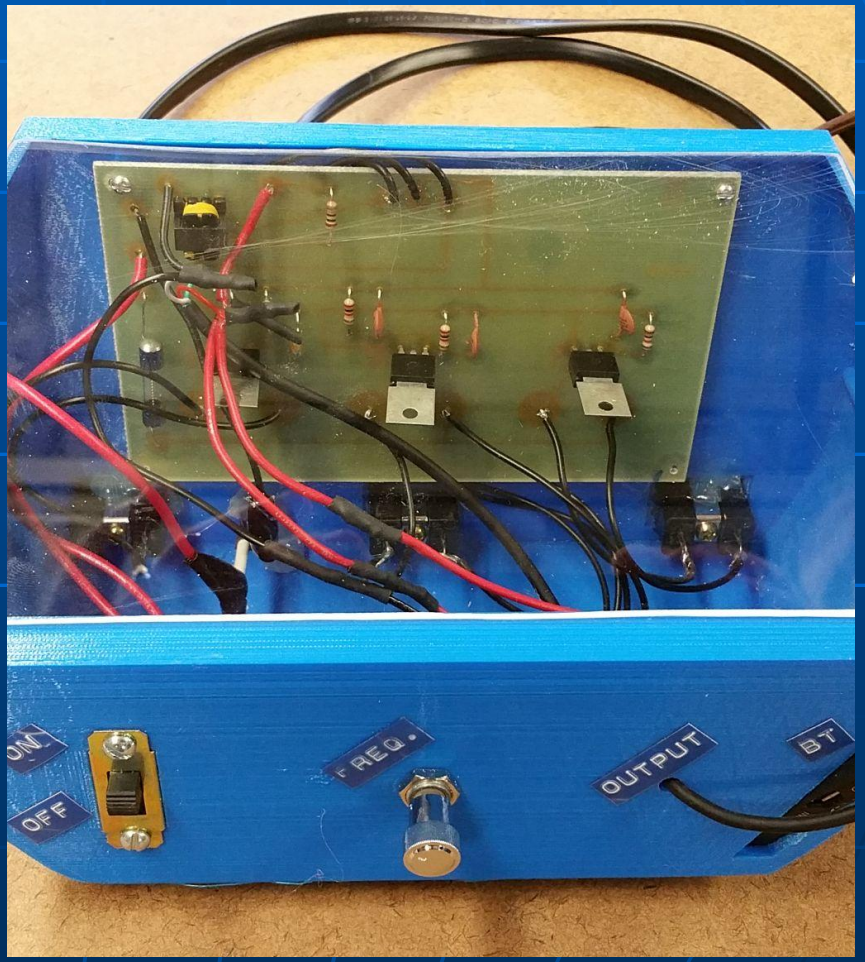

AEROPOSTALE

Electricity & Digital Electronics

- Learn about Electronics
- Build your own Strobe Light and Bluetooth Speaker
- Can be applied as a third unit of math or science



Electronics Projects



Residential Construction

Learn to Survey and Stake Out a House

Build a Scale Concrete Basement Foundation

Learn to Build Walls, Solder Copper Pipes, Run Electricity, Insulate, Drywall, and Vinyl Side a House

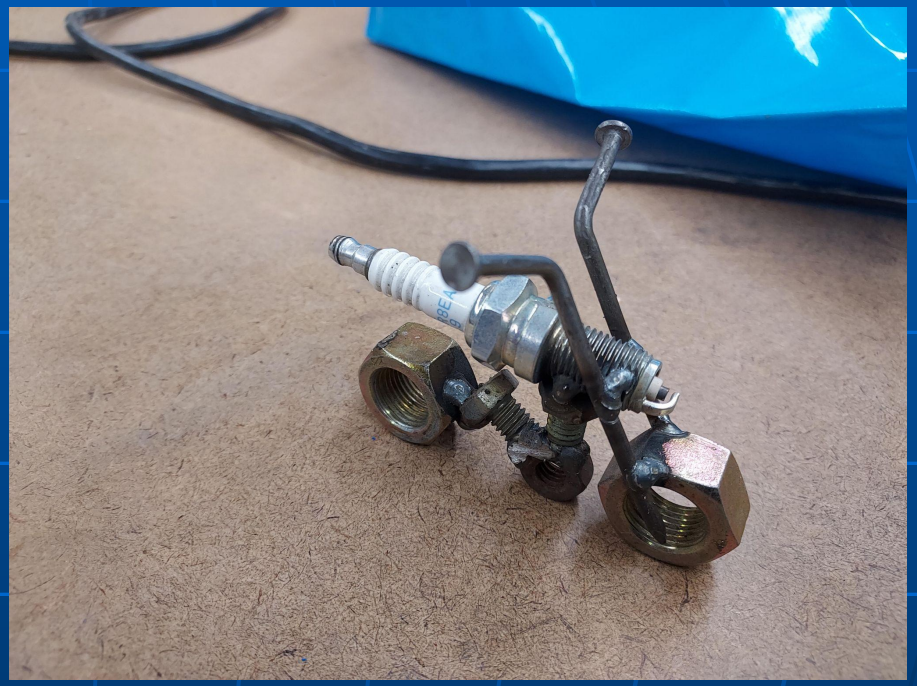
Concrete Basement Foundation

Wall Section Project

Materials Processes

Learn to use Welding and Machining Equipment, Torch, and Plasma Cutter

Welding Projects

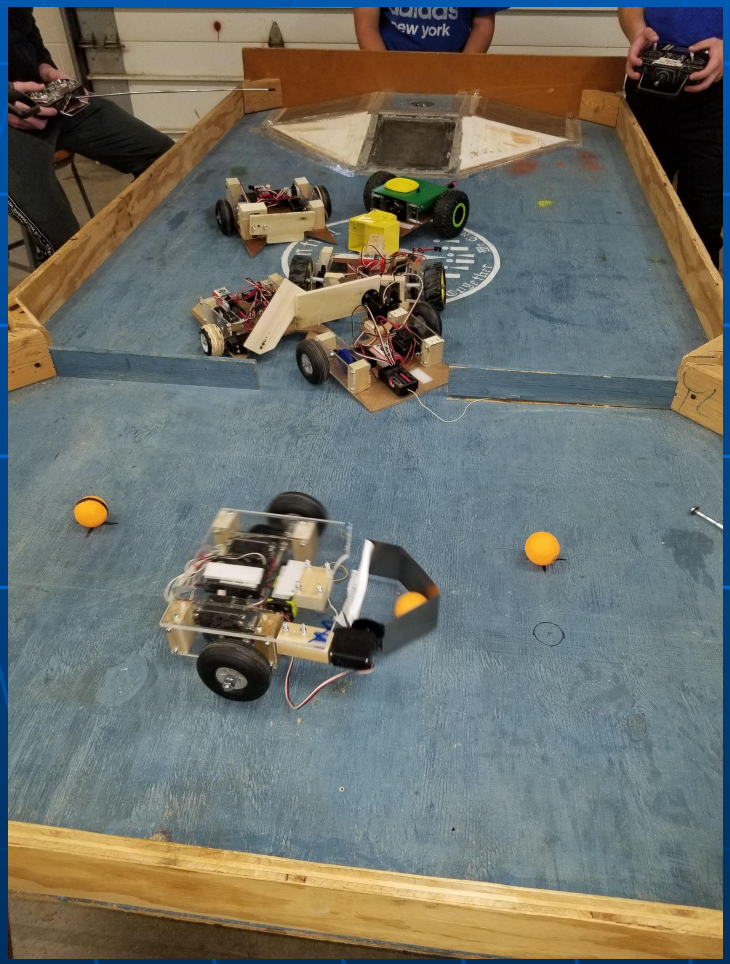


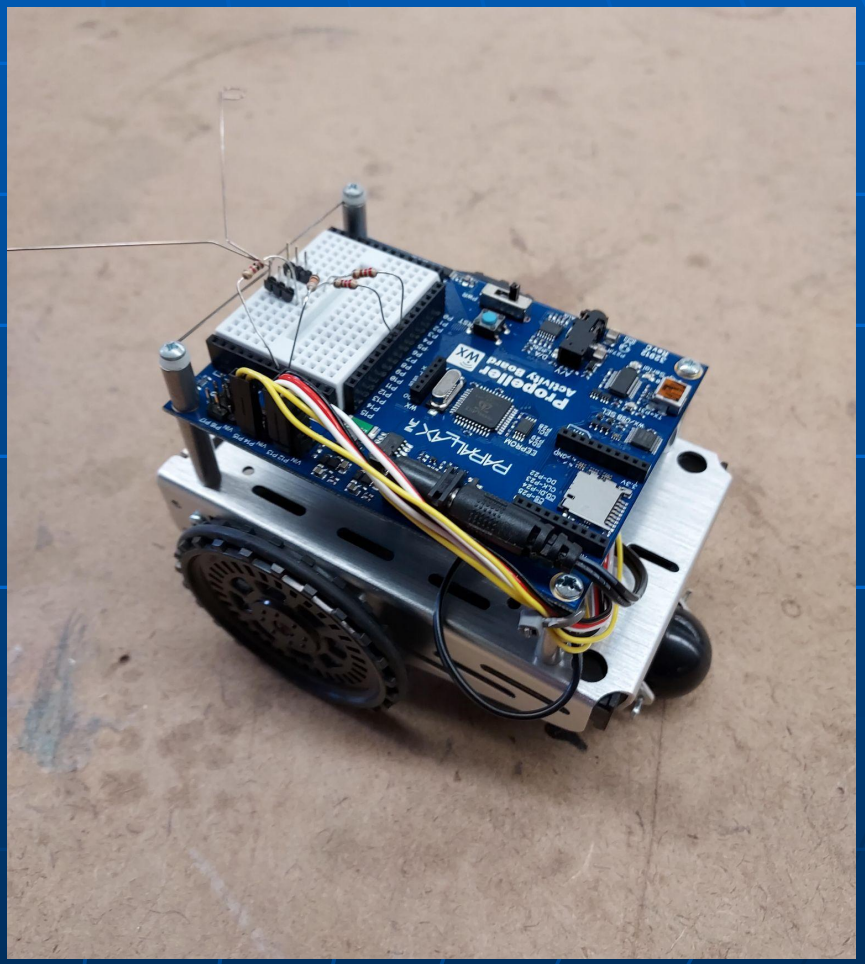
Build Chess Boards

Robotics & Principles of Engineering

Build Robots and Compete at Tech Wars!

Programmable and R/C Robots



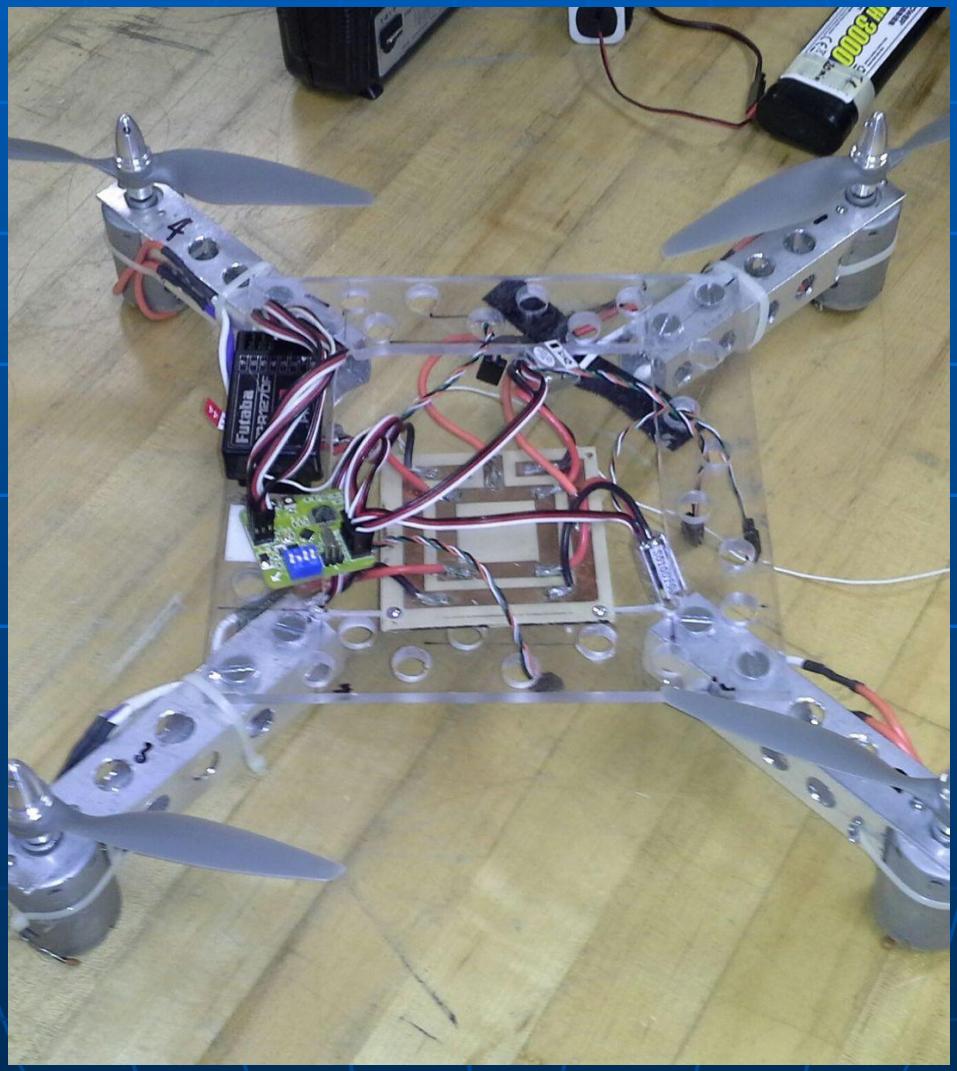



STUDENT SUCCESS CENTER


FINAL SCORE:
FX NYTRO ONE

Electric Vehicles

Possibly a New Drone Unit!!!



Suggested Freshman Courses

- Design and Drawing for Production
  - Computer Aided Drafting
- Production and Manufacturing Systems
  - Hands-on Projects and Learn Basic Woodworking, Sheet Metal, and Plastics Skills

* The above courses are prerequisites for all other high school technology courses.

Other Important Facts About Taking Tech Classes

- Design and Drawing for Production can replace the Art credit requirement for graduation
- Five units of Technology can be used to get an Advanced Regents Diploma without taking Foreign Language (Eight units of Technology are available)
- BOCES students can often take a Technology course while still attending BOCES
- *Electronics/Digital Electronics can be used as a Math or Science credit