Name:	Grading Quarter:	Week Beginning:		
Robert Lefrandt	4	03/17/2025		
School Year: 2024-25	Subject: Fab Lab/Engineering			

Monday

Notes: Robotic Assemblies Mechtronic

Engineer: ReEngineer Reverse Engineering Structural Chassis frame body Mechanical (Motion) Gear: Box, train, parallel (linear) stack (vertical), ratio, torque

Mechtronic

speed

Electrical (
Ohm's Law,
Parallel/Seri
al Circuits)
Chemical
e-chem
Physical
Magnetism
Batteries
Software

Block
PLC ladder
logic, CNC,
Python, C++
Sensors
touch, Dist
Light,
Camera

# Fab Lab/Engineering-No School – Prof Dev

# Objective:

The Fab Lab/Engineering instructional program prepares students to apply basic engineering principles and technical skills in support of engineers engaged in a wide variety of projects.

#### **Lesson Overview:**

Students learn to apply Science Technology Engineering Math (STEM) concepts to current technologies and tools as they learn about the different disciplines and opportunities within the fields of engineering.

### **Blueprint for Instruction and Assessment**

Engineering Math and Science Principles, Tools, Project Management, Address Needs in Global Society

VersCAMM SP-300i 30" Eco-Solvent Injet PrinterCutter

• Teacher Print – ...

Laser Engraving/Cutting: Cups, other....Ethan Gonzales(Stu. Council) 3D Printing-

Competitions Prep: Robotics:

vr.vex.com: virtual Robotics-Coding: Block/Python Text-High

# <mark>Stakes</mark>

Solar Go-kart: "Racing to the Sun" (Tuscon, AZ) 11/19 (Tues)

sarsef.org/racing-the-sun/

sarsef.org/racing-the-sun/important-dates/

### Kayla Miranda (kayla@sarsef.org)

- 2025 Other dates?
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- Dan Grubner/Fish & Game visit FabLab Creating IOT devices
  - WorkForce Service -Webpage BRHS Students Code

Academic Standards:

Arizona
Department
of
Education
Website:

Program
Description/
Industry
Credentials/
Coherent
Sequence/

https://www .azed.gov/cte /es/ l uesda\

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Notes Conti:
PhysComp
Embedded
smart, IIOT
AI ,Data
Collect Data
Analyze Data
MachinLearn
Collaborate
schools,

Wednesday

Notes: Robotic Assemblies Mechtronic

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PhysComp
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AI ,Data
Collect Data
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MachinLearn
Collaborate
schools,

Thursday

### Notes:

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# Mechtronic

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Parallel/Seri
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MachinLearn
Collaborate
schools,

Friday

### Notes:

Engineer:
ReEngineer
Reverse
Engineering
Structural
Chassis
frame body
Mechanical
(Motion)
Gear: Box,
train,
parallel

### Mechtronic

(linear)

(vertical),

stack

ratio,

torque

speed

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