Name: Robert Lefrandt	Grading Quarter: 1	Week Beginning: 08/26/2024
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 speed Mechtronic Electrical (Ohm's Law, Parallel/Serial Circuits) Chemical e-chem Physical Magnetism Batteries Software Block PLC ladder logic, CNC, Python, C++ Sensors touch, Dist Light, Camera	**No School** **Fab Lab/Engineering** **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	Academic Standards: Arizona Department of Education Website: Program Description/ Industry Credentials/ Coherent Sequence/ https://www .azed.gov/cte /es/

| Tuesday | Notes:
Robotic Assemblies Mechtronic

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

Mechtronic

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

Block PLC ladder logic, CNC, Python, C++ Sensors touch, Dist Light, Camera | **Fab Lab/Engineering**

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Arizona Department of Education Website:

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

Industry Community |

Wednesday	Notes:	Fab Lab/Engineering	Academic Standards:
	Robotic Assemblies Mechtronic Engineer: ReEngineer Reverse Engineering Structural Chassis frame body Mechanical (Motion) Gear: Box, train, parallel (linear) stack (vertical), ratio, torque speed	**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	Arizona Department of Education Website: Program Description/ Industry Credentials/ Coherent Sequence/ https://www.azed.gov/cte/es/
	Mechtronic Electrical (Ohm's Law, Parallel/Serial Circuits) Chemical e-chem Physical Magnetism Batteries Software		Notes Conti: PhysComp Embedded smart, IIOT AI ,Data Collect Data Analyze Data MachinLearn Collaborate schools,
	Block PLC ladder logic, CNC, Python, C++ Sensors touch, Dist Light, Camera		Industry Community

| Thursday | Notes:

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

Mechtronic

Electrical (
Ohm's Law,
Parallel/Seri
al Circuits)
Chemical
e-chem
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Block
PLC ladder
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Industry Community |

| Friday | Notes:

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

Mechtronic

Electrical (
Ohm's Law,
Parallel/Seri
al Circuits)
Chemical
e-chem
Physical
Magnetism
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Block
PLC ladder
logic, CNC,
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