Name:	Grading Quarter:
Robert Lefrandt	1
School Year: 2023-24	Subject: Automation & Robotics

	Notes:	08/07/2023
	Robotic	Objective:
	Assemblies	Apply basic engineering principles and technical skills for artificial intelligent managementthe principle
	Mechtronics	control languages.
	Engineering:	https://live-az-ade.pantheonsite.io/sites/default/files/2021/06/ProgramDescription_AutomationAndRobotics.pdf
	Structural	
	Chassis	
	frame body	Lesson Overview:
	N4 s als a si a a l	1st Semester Students:
	Mechanical (Motion)	Login to VEX Certification Accounts
	Gear: Box,	Continue building VEV VE Debate
	train,	Continue building VEX V5 Robots Speedbot/Basebot
	parallel	https://www.vexrobotics.com/v5/downloads/build-instructions
	(linear)	
	stack	
	(vertical),	2 nD Semester Plus+ Students:
	ratio,	Login to VEX Certification Accounts Building VEX V5 Robots and customizing robots
	torque speed	Saliding VEX 15 Hosots and costonium process
_		VEX V5 Parts (3D Print)
0	•	Autodesk Tinkercad
Wonday	- Electrical	https://www.tinkercad.com/things/5zBduwCA6c9-vex-v5-parts
₹	Chemical	VEX V5 and VEX Pro (CAD Files)
	Physical	https://www.vexrobotics.com/v5
	Magnetism	https://www.vexrobotics.com/pro
	Batteries	https://www.vexrobotics.com/v5/products/view-
		all/?q=empty&vex_site=cads&vex_m2_vexrobotics_cads%5BrefinementList%5D%5Bproduct_lines%5
	Software	
	Block	Understanding VEX Classic and V5 Smart Motors
	PLC ladder logic, CNC,	https://kb.vex.com/hc/en-us/articles/360060929971-Understanding-V5-Smart-Motors
	Python,	https://wiki.purduesigbots.com/vex-electronics/vex-electronics/motors
	C++,	https://motors.vex.com/
		https://motors.vex.com/introduction
	Sensors Physical	https://curriculum.vexrobotics.com/curriculum/speed-power-torque-and-dc-motors/classical-mechanics.h
	Computing	https://cumculum.vexiobotics.com/cumculum/speed-power-torque-and-dc-motors/classical-mechanics.r
		https://curriculum.vexrobotics.com/curriculum/speed-power-torque-and-dc-motors/dc-motors.html
	AI	
		https://curriculum.vexrobotics.com/curriculum/speed-power-torque-and-dc-motors/simulate_and_size_a
		https://www.autodesk.com/education/edu-software/overview?sorting=featured&filters=individual
		https://motors.vex.com/brushed-brushless

	https://motors.vex.com/vexpro-motors

	Notes: 08/08/2023 - 2 nd Week
	Robotic Objective:
ne principle	Assemblies Apply basic engineering
	Mechtronics control languages.
otics.pdf	Engineering: https://live-az-ade.panth
	Structural
	Chassis Lesson Overview:
	frame body
	Mechanical 1st Semester Students:
	(Motion) Login to VEX Certificati
	Gear: Box, Continue building VEX
	train, Speedbot/Basebot
	parallel https://www.vexrobot
	(linear)
	stack (vertical), 2 nD Semester Plus+ Stu
	ratio, Login to VEX Certificati
	torque Building VEX V5 Robots
	speed
	VEX V5 Parts (3D Print) Autodesk Tinkercad
	https://www.tinkercad
	Blectrical
	Chemical VEX V5 and VEX Pro (C.
	https://www.vexrobot
	Batteries https://www.vexrobot
	https://www.vexrobot
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	Python, https://wiki.purduesigl
nechanics.ł	Physical https://curriculum.vex
	Computing
s.html	• • • • • • • • • • • • • • • • • • • •
and_size_a	https://curriculum.vex
dual	https://www.autodesk
	https://motors.vex.cor
	https://motors.vex.cor
nechar s.html and_si	Software Block PLC ladder logic, CNC, Python, C++, Sensors Physical Computing https://curriculum.vex https://curriculum.vex https://www.autodesk https://www.autodesk

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Γ		Notes:	<u> </u>
			08/09/2023 - 2 nd Week
	ĺ	Robotic	Objective:
		Assemblies	Apply basic engineering principles and technical skills for artificial intelligent managementthe principle
		Mechtronics	
		Engineering: Structural	https://live-az-ade.pantheonsite.io/sites/default/files/2021/06/ProgramDescription_AutomationAndRobotics.pdf
		Chassis	Lesson Overview:
	ĺ	frame body	
		Mechanical	1st Semester Students:
		(Motion)	Login to VEX Certification Accounts
		Gear: Box,	Continue building VEX V5 Robots
		train,	Speedbot/Basebot
		parallel	https://www.vexrobotics.com/v5/downloads/build-instructions
		(linear)	
		stack	
		(vertical),	2 nD Semester Plus+ Students:
		ratio,	Login to VEX Certification Accounts
		torque	Building VEX V5 Robots and customizing robots
	<	speed	VEX V5 Parts (3D Print)
Vec	/ec	1	Autodesk Tinkercad
	Wednesday	Electrical	https://www.tinkercad.com/things/5zBduwCA6c9-vex-v5-parts
	da	Chemical	VEX V5 and VEX Pro (CAD Files)
	<	Physical	https://www.vexrobotics.com/v5
		Magnetism	https://www.vexrobotics.com/pro
		Batteries	
		1	https://www.vexrobotics.com/v5/products/view-
		1 - 0	all/?q=empty&vex_site=cads&vex_m2_vexrobotics_cads%5BrefinementList%5D%5Bproduct_lines%5
		Software Block	Understanding VEX Classic and V5 Smart Motors
		PLC ladder	https://kb.vex.com/hc/en-us/articles/360060929971-Understanding-V5-Smart-Motors
		logic, CNC,	Tittps://ko.vex.com/no/en as/arasiss/socoosss
		Python,	https://wiki.purduesigbots.com/vex-electronics/vex-electronics/motors
		C++,	https://motors.vex.com/
		1	https://motors.vex.com/introduction
		Sensors Physical	https://curriculum.vexrobotics.com/curriculum/speed-power-torque-and-dc-motors/classical-mechanics.l
		Computing	https://curriculum.vexrobotics.com/curriculum/speed-power-torque-and-dc-motors/dc-motors.html
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			https://www.autodesk.com/education/edu-software/overview?sorting=featured&filters=individual
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https://motors.vex.com/vexpro-motors

	Т	Teathetean
	Notes:	08/10/2023 - 2 nd Week
	Robotic Assemblies	Objective: Apply basic engineering principles and technical skills for artificial intelligent managementthe principle control languages.
	Mechtronics	https://live-az-ade.pantheonsite.io/sites/default/files/2021/06/ProgramDescription_AutomationAndRobotics.pdf
	Engineering: Structural Chassis	Lesson Overview:
	frame body	1st Semester Students: Login to VEX Certification Accounts
	Mechanical (Motion) Gear: Box, train, parallel	Continue building VEX V5 Robots Speedbot/Basebot https://www.vexrobotics.com/v5/downloads/build-instructions
	(linear)	2 nD Semester Plus+ Students:
	stack	Login to VEX Certification Accounts
	(vertical),	Building VEX V5 Robots and customizing robots
	ratio, torque	VEX V5 Parts (3D Print)
⊒	speed	Autodesk Tinkercad
nur	'	https://www.tinkercad.com/things/5zBduwCA6c9-vex-v5-parts
Thursday	Electrical Chemical	VEX V5 and VEX Pro (CAD Files) https://www.vexrobotics.com/v5 https://www.vexrobotics.com/pro
	Physical	Tittps.// www.vexi obotics.com/pro
	Magnetism Batteries	https://www.vexrobotics.com/v5/products/view-all/?q=empty&vex_site=cads&vex_m2_vexrobotics_cads%5BrefinementList%5D%5Bproduct_lines%5
	!	Understanding VEX Classic and V5 Smart Motors
	Software	https://kb.vex.com/hc/en-us/articles/360060929971-Understanding-V5-Smart-Motors
	Block PLC ladder logic, CNC, Python,	https://wiki.purduesigbots.com/vex-electronics/vex-electronics/motors https://motors.vex.com/ https://motors.vex.com/introduction
	C++,	https://curriculum.vexrobotics.com/curriculum/speed-power-torque-and-dc-motors/classical-mechanics.l
	Sensors	
	Physical Computing	https://curriculum.vexrobotics.com/curriculum/speed-power-torque-and-dc-motors/dc-motors.html
		https://curriculum.vexrobotics.com/curriculum/speed-power-torque-and-dc-motors/simulate_and_size_a
	Al	https://www.autodesk.com/education/edu-software/overview?sorting=featured&filters=individual
		https://motors.vex.com/brushed-brushless
		https://motors.vex.com/vexpro-motors

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Notes:	08/11/2023 - 2 nd Week
Robotic	Objective:
Assemblies	Apply basic engineering principles and technical skills for artificial intelligent managementthe principle
Mechtronics	control languages.
Engineering:	https://live-az-ade.pantheonsite.io/sites/default/files/2021/06/ProgramDescription_AutomationAndRobotics.pdf
Structural	
Chassis	
frame body	Lesson Overview:
Mochanical	1st Semester Students:
	Login to VEX Certification Accounts
Gear: Box,	Continue building VEX V5 Robots
train,	Speedbot/Basebot
parallel	https://www.vexrobotics.com/v5/downloads/build-instructions
(linear)	
	2 nD Semester Plus+ Students:
	Login to VEX Certification Accounts
-	Building VEX V5 Robots and customizing robots
•	3
speed	VEX V5 Parts (3D Print)
	Autodesk Tinkercad
Electrical	https://www.tinkercad.com/things/5zBduwCA6c9-vex-v5-parts
Chemical	VEX V5 and VEX Pro (CAD Files)
Physical	https://www.vexrobotics.com/v5
Magnetism	https://www.vexrobotics.com/pro
Batteries	
	https://www.vexrobotics.com/v5/products/view-
6.6	all/?q=empty&vex_site=cads&vex_m2_vexrobotics_cads%5BrefinementList%5D%5Bproduct_lines%5
	Understanding VEX Classic and V5 Smart Motors
	https://kb.vex.com/hc/en-us/articles/360060929971-Understanding-V5-Smart-Motors
logic, CNC,	
Python,	https://wiki.purduesigbots.com/vex-electronics/vex-electronics/motors
C++,	https://motors.vex.com/
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23696	https://curriculum.vexrobotics.com/curriculum/speed-power-torque-and-dc-motors/dc-motors.html
Al	https://gurrigulum.vovrahatics.com/gurrigulum/gnood_nougr_targus_and_da_matars/gimulata_and_size_s
	https://curriculum.vexrobotics.com/curriculum/speed-power-torque-and-dc-motors/simulate_and_size_a
	https://www.autodesk.com/education/edu-software/overview?sorting=featured&filters=individual
	https://motors.vex.com/brushed-brushless
	https://motors.vex.com/vexpro-motors
	Assemblies Mechtronics Engineering: Structural Chassis frame body Mechanical (Motion) Gear: Box, train, parallel (linear) stack (vertical), ratio, torque speed Electrical Chemical Physical Magnetism Batteries Software Block PLC ladder logic, CNC, Python, C++, Sensors Physical Computing