JOB HAZARD ANALYSIS Mini RC Baja Car

Prepared by	y: Collin McKenzie	Reviewed by:
		Approved by:
Location of Task:	Hogue Technology Building	
Required Equipmen t / Training for Task:	Machining Training, Hogue Labs traitraining.	ning, and operation of device
Reference Materials as appropriat e:	ASME Baja Car Rules https://www.cwu.edu/engineering/sites/cts.cwu.eBajaRules.pdf ETSC Safety Policy https://www.cwu.edu/engineering/department-energy-committee	edu.engineering/files/documents/met_2015RC_ ngineering-technologies-safety-and-construction-

Personal Protective Equipment (PPE) Required (Check the box for required PPE and list any additional/specific PPE to be used in "Controls" section)						
						100
Gloves	Dust Mask	Eye Protection	Welding Mask	Appropriate Footwear	Hearing Protection	Protective Clothing
		Protection	IVIASK	rootwear	Protection	Clothing
✓		✓		✓		
Use of any respiratory protective device beyond a filtering facepiece respirator (dust mask) is voluntary by the user.						

PICTURES (if applicable)	TASK DESCRIPTION	HAZARDS	CONTROLS
(if applicable)	TASK DESCRIPTION	HAZARDS	CONTROLS

Machining	1. Impact	Person(s) can	Wear
Chassis	i. impact	strike an object, or	appropriate
Plate.		be struck by a	footwear
		moving or	and eye
		flying/falling object	protection.
		(e.g., fragments,	Follow SOP
		chips, particles,	machine.
		sand, dirt/debris).	Ensure all
			instructions
			and
			operating
	2. Penetration or	Person(s) can	procedures
	Cut	strike an object, be	are read
		struck by an object,	
		or fall upon an object or tool that	understood
		would cut or	prior to
		otherwise break the	operation. Focus on
		skin.	safety
			features
			outlined.
			Ensure all
			PPE is
	3. Crush or Pinch		worn.
		An object(s) or	
		equipment/machine	
		may crush or pinch	
		a body or body part	
	4. Chemical or		
	Harmful Dust	Exposure to	
		chemicals (i.e.,	
		hazardous	
		substances and harmful physical	
		agents), infectious	
		agents from spills,	
		splashing, physical	
		contact, and/ or	
		exposure to dusts,	
		vapors, fumes, or	
		gases that could cause illness,	
		irritation, burns,	
		asphyxiation,	
		breathing/vision	
		difficulty,	
		sensitization, infection, or other	
		toxic health effect	
		toxic ileanii ciicul	
		Exposure to radiant	
	5. Heat	heat sources,	
		sparks, and	

		splashes or spills	
		of hot material	
	6. Light (optical)		
	Radiation	Exposure to strong	
		light sources,	
		glare, or intense	
		light exposure	
		which is a	
		byproduct or a	
	7. Electrical	process.	
	Contact		
		Exposure, contact,	
		or proximity to live	
		or potentially live	
		electrical objects.	
		1.1.7	
	8. Ergonomic/		
	Human Factors		
		Working in cramped	
		spaces, repetitive	
		movements,	
		awkward postures,	
		vibration, heavy	
		lifting.	
	9. Environmental	Exposure to poicy	
	9. Environmental	Exposure to noisy	
		environments, hot	
		or cold work	
		environments, poor	
		weather conditions,	
		working at a height,	
		and any other	
		conditions in the	
		workplace that	
		could cause	
		danger, discomfort,	
		and/or negative	
		health effects.	
	1. Impact	Person(s) can	Wear
Machining support mounts.		strike an object, or	appropriate
		be struck by a	footwear
		moving or	and eye
		flying/falling object	protection.
		(e.g., fragments,	Follow SOP
		chips, particles,	
		sand, dirt/debris).	machine.
		,	Ensure all
			instructions
			and
			operating
	2. Penetration or	Person(s) can	procedures
	Cut		are read
	Cut	struck by an object,	

	or fall upon an object or tool that would cut or otherwise break the skin.	safety
		features outlined. Ensure all PPE is worn.
3. Crush or Pinch	An object(s) or equipment/machine may crush or pinch a body or body part	worn.
4. Chemical or Harmful Dust	Exposure to chemicals (i.e., hazardous substances and harmful physical agents), infectious agents from spills, splashing, physical contact, and/ or exposure to dusts, vapors, fumes, or gases that could cause illness, irritation, burns, asphyxiation, breathing/vision difficulty, sensitization, infection, or other toxic health effect	
5. Heat	Exposure to radiant heat sources, sparks, and splashes or spills of hot material	
6. Light (optical) Radiation	Exposure to strong light sources, glare, or intense light exposure which is a byproduct or a process.	

	7. Electrical	Exposure, contact,	
	Contact	or proximity to live	
		or potentially live	
		electrical objects.	
	8. Ergonomic/	Manufacture to	
	Human Factors	Working in cramped spaces,	
		repetitive	
		movements,	
		awkward postures,	
		vibration, heavy	
		lifting.	
	9. Environmental	Exposure to noisy	
		environments, hot	
		or cold work	
		environments, poor weather conditions,	
		working at a height,	
		and any other	
		conditions in the	
		workplace that	
		could cause danger, discomfort,	
		and/or negative	
		health effects.	
	1. Clean the table.	Eye injury from metal Wear	
		debris. approp	
	2. Load the vise	Foot injury if the vise and eye	
		falls.	
Drill press mounting holes on		<u>i</u>	
chassis.		Finger pinching while sliding the of mach	
		vise. Ensure	
		materia	ıl is
		Back strain in vise	or
		clamp .	
	3. Lock the table	securel	
	in place	Hand injury from the is worn	
	4. Load the bit	bit Is worn	la
	2.22 1 2 2 2	Ensure	
		None Foreseen clear of	
		olcai ol	
		tripping hazards	_
	5. Start the drill	aware	
		hand ar	
		Injury caused by finger	
		breaking the bit location	n at
		all time	s.

	6. Feed the drill	Finger pinching Rotate job
	with the feed	while sliding the vise tasks when
	7. Unload the vise	possible. Ensure Eye injury from metal table is at proper ergonomic level.
	8. Clean the table	icvei.
Drilling bolts and fastening screws	1. Clean the table.	Eye injury from metalWear eye debris. protection and keep fingers
	2. Load the vise	Foot injury if the vise away from location of drilling. Ensure area is clear of all tripping hazards. Be aware of
	3. Lock the table in place4. Load the bit	Finger pinching while sliding the vise. hand and finger location at all times. Rotate job tasks when possible.
		Back strain Ensure table is at proper
	5. Start the drill	Hand injury from the level.
	6. Feed the drill with the feed	None Foreseen
	7. Unload the vise	Injury caused by breaking the bit
		Finger pinching while sliding the vise
	8. Clean the table	Eye injury from metal debris

Operation of Car during testing/competition	Fast moving devices can cause injury if struck.	Stay at least 10 feet away while testing and wear appropriate footwear to minimalize risk of injury. Closed toe shoes. Wear proper PPE when handling or adjusting device in both on or off state.
Operation of Car during testing/competition	Moving gears and shocks can cause injury or pinch appendages.	When modifying or picking up car, ensure device is off and fingers are away from potential moving parts. Wear proper PPE such as gloves and eye protection.