VEX U Robot Inspection Checklist, 2023-24 Season

Team Number: _____ **Robot:** ____ of _____

Size Inspection

☐ Robot fits within starting size restrictions (24" x 24" x 24" or 15" x 15" x 15") and horizontal expansion limit (36" maximum in any direction). Team ID Plates must be installed for sizing inspection.	**<VUR1>**

Overall Inspection

☐ Robot displays colored VEX Team Identification Number on at least two (2) opposing sides.	**<R9>**
☐ Robot does NOT contain any components which will be intentionally detached on the playing field.	**<G6>**
☐ Robot does NOT contain any components that could damage the playing field or other robots.	**<R5>**
☐ Robot does NOT contain any sharp edges or corners.	**<R5>**
☐ Robot poses NO obvious unnecessary risk of entanglement.	**<R5>**
☐ Robot Brain power button is accessible without moving or lifting the robot.	**<R25>**
☐ Team testifies that the designing, building, programming, & fabrication of the robot was done only by the students on the team.	**<R2>, <G2>, <G4>, <VUR7>**

VEX Parts Inspection

☐ ALL robot components (except sensors or electronics) are OFFICIAL and legal VEX products (or legal identical versions) or listed as an exception below: ▪ Robot can use an unlimited amount of non-shattering plastic ▪ Robot can use an unlimited amount of legal raw stock (sheets, billets, bars, hollow bars/rods/tubes, rods/wires/filament) ▪ Robot can use an unlimited amount of plastic 3D printed parts ▪ Robot can use an unlimited amount of rope/string ▪ Any grease is used only in moderation on components that do not contact the field or game objects ▪ Robots can use commercially available springs ▪ Robots can use any commercially available fastener ▪ Fabrication techniques such as bending, welding, and bonding are permitted ▪ Any commercially available pneumatic components that are rated at least 100 psi are permitted and the compressed air contained inside a pneumatic sub-system is only being used to actuate legal pneumatic devices	**<R7>, <R18>, <R19>, <R20>, <VUR2> through <VUR9>, <VUR13>**
☐ Robot does not use commercial, prefabricated parts that are not part of the VEX line.	**<VUR5>, <VUR7>**
☐ Robot does not use VEX electronics that are specifically listed as being banned.	**<VUR2>**
☐ Robot does not use VEX products not intended for use as a robot component or any VEX packaging.	**<R6>**
☐ ALL components on the robot NOT meeting VEX U inspection criteria are NON-FUNCTIONAL decorations.	**<R8>**
☐ Robot has only one (1) VEX V5 Robot Brain and no additional VEX microcontrollers.	**<VUR10>**
☐ Robot must use one (1) or two (2) V5 Robot Radios, and no other types of wireless communication protocol.	**<VUR10>**
☐ Robot uses only unmodified V5 Smart Motors and/or EXP Smart Motors. No other motors, servos, or electronic actuators are used on the Robot.	**<VUR11>**
☐ Robot uses one (1) V5 Robot Battery Li-Ion 1100mAh as the primary power source.	**<VUR12>**
☐ Sensors & electronics MUST be connected to the V5 Robot Brain via any of the externally accessible ports. They cannot directly electrically interface with the VEX motors.	**<VUR12>**
☐ No more than one (1) additional lithium ion, lithium iron or nickel metal hydride battery may be used solely for powering additional sensors and electronics. Only a V5 battery can power the V5 brain.	**<VUR12>**
☐ Robot is not controlled by more than two (2) V5 Controllers.	**<R23>**
☐ NO VEX electrical or pneumatic components have been modified from their original state.	**<R14>**
☐ The Robot correctly responds to enable/disable tests (ignores input from the controller during autonomous, etc.).	<R26>

Team Verification

	Initial
☐ Team has fully read and understands the game manual and Q&As, including but not limited to G1, G2, G4, R2, T1, T4, and VUT1.	
☐ Team has fully read and understands the Code of Conduct and Student-Centered Policy	

* Robot passes inspection when all checkboxes are complete, and this form includes inspector and team signatures.

Final Inspection

Pass
(Circle when passed)

Student team member accepts these Inspection results and certifies that this robot was designed, built, and programmed by qualified students on this team with little to no assistance from the adult mentor(s):

Team Student Signature: _____ **Date:** _____

Inspector Signature: _____ **Date:** _____