Robot Inspection Checklist

Team Number: _____   **Division:** _____

Team Verification   **Initial**

☐ Team testifies that the designing, building, and programming of the robot was done only by the students on the team.	
☐ Team has fully read and understands the game manual and Q&As, including but not limited to G1-G4, R1-R4, R26, T1, & T3.	
☐ Team and coach have fully read and understand the Code of Conduct and Student-Centered Policy.	
☐ Coach and team adults have fully read and understand the Adult Behavior Guidelines.	
☐ Coach and team adults understand that an adult must be present for the full duration of the event, per rule S2.	

Size Inspection

☐ Robot fits within starting size restrictions (18"x18"x18" / 457.2mm x 457.2mm x 457.2mm) with License Plates installed, **in all potential starting configurations**.	**<R5>**
☐ Robot does not expand larger than 22"x22"x22".	**<SG2>** **<SG3>**

Overall Inspection

☐ Team is only competing with ONE robot. They have no spare or replacement robots. Multiples of subsystem 3 (manipulators) are permitted.	**<R1>**
☐ Robot has red or blue (not both!) Robot License Plates mounted on exactly two (2) opposing sides, with the team number displayed legibly in white text.	**<R6>**
☐ Robot does not have components that are intentionally detachable, pose an unnecessary risk of entanglement, or pose a risk of potential damage to the field elements or other robots.	**<GG8>** **<GG9>** **<R19>**

Electronics Inspection

☐ Robot has only (1) VEX V5 Robot Brain and no additional microcontrollers.	**<R8>**
☐ Robot Brain power button is accessible without moving or lifting the robot.	**<R9>**
☐ Robot Brain has the latest firmware listed on https://link.vex.com/firmware. If an event uses the Smart Field Control System, the robot brain must be named with the team number & letter (with no spaces).	**<R10>**
☐ Total power of motors is limited to 88W equivalence. Quantity of 11W _____ × 11 = _____ Quantity of 5.5W _____ × 5.5 = _____ Total power = _____ (sum of above)	**<R12>**
☐ Robot uses only one (1) V5 Robot Battery and no other power sources.	**<R13>**
☐ Robot has at least one VEX radio. Robot utilizes the VEXnet wireless communication system and no other wireless communication during matches.	**<R14>**
☐ Robot is controlled by no more than two (2) V5 Controllers.	**<R16>**
☐ NO VEX electrical components have been modified from their original state.	**<R28>**

Detailed Components Inspection

☐ None of the electronics are from the V5 Beta, VEXplorer, VEXpro, VEX-RCR, VEX IQ, VEX Cortex, or VEX Robotics by Hexbug. This includes the EXP Brain, EXP Controller, Smart Field Controller, EXP battery, and VEX 2-wire Motors.	**\<R19e-g\>**
☐ Robot only uses VEX products that are intended for use as a robot component, and doesn't use any VEX packaging.	**\<R19j\>**
☐ No 3D printed components or decorations are used on the robot.	**\<R19k\>**
☐ Robot does not have excessive anti-static compound, cooling spray, grease, or lubricant that could transfer to the field or game objects; no aerosol lubricant.	**\<R20b-c\>**
☐ If hot glue is used, it's limited to cable connections.	**\<R20d\>**
☐ Rope/string is no thicker/wider than ¼" (6.35mm).	**\<R20e\>**
☐ If cable management materials are used, they're limited to cable management.	**\<R20f\>**
☐ Rubber bands and zip ties match the VEX standard parts.	**\<R20g&i\>**
☐ If any custom cables are used, they are made only with official V5 Cable Stock.	**\<R21\>**
☐ If tape is used, it's limited to cable connections, labeling, covering backs of license plates, pneumatic fittings, string aglets, or non-functional decoration.	**\<R22\>**
☐ Non-VEX screws, nuts, washers, and standoffs match VEX standard sizes. Shoulder screws do not have a shoulder length over 0.20" or a diameter over 0.176".	**\<R23\>**
☐ All methods of attachment are from the VEX design system (NO welding, gluing, etc.).	**\<R27e\>**
☐ If Loctite or other thread-lockers are used, they're limited to securing hardware.	**\<R27f\>**
☐ ALL other non-electronic/pneumatic robot components are OFFICIAL VEX V5 components as sold on VEXrobotics.com, listed as discontinued but legal, non-functional decorations that don't mimic field objects, materials used as color filters for sensors, or custom plastic.	**\<R17-18\>** **\<R20\>** **\<R24\>**

Pneumatics and Custom Plastic Inspection

☐ All pneumatic components are from the VEX pneumatics kit or appear on the legal pneumatic component list, and have not been modified.	**\<R26\>** **\<R28\>**
☐ Robot uses a maximum of two (2) VEX pneumatic air reservoirs (maximum 100 psi per air reservoir) and the compressed air contained inside a pneumatic sub-system is only being used to actuate legal pneumatic devices.	**\<R26\>**
☐ The robot includes no more than 12 individual pieces cut from non-shattering plastic, and no single piece is larger than 4" x 8" (101.6mm x 203.2mm).	**\<R25\>**
☐ No custom plastic is thicker than 1/16" / 0.070" (1.778mm).	**\<R25\>**

Sensors   Y/N

☐ Does your robot use any sensors that are dependent on the quality and/or consistency of field lighting (e.g., optical sensor, vision sensor, or GPS sensor)?	

Final Inspection   Pass   **Inspector Signature:** _____
                             (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 Member Signature: _____ **Coach Signature:** _____