TEAM NUMBER: ___________________________________________  INITIALS (after passing): ___________________________  DATE (after passing): __________/____/______

REINSPECTION (initial) ___________________________________________  FINAL INSPECTION (initial) ___________________________

Size and Weight:
- ROBOT Weight - Must be ≤ 125.5 lbs. (-56kg) excluding BUMPERs and battery. <R103> ___________________________ pounds
- Total Inspected Weight - ROBOT + swappable mechanisms ≤150 lbs. <R1103> ___________________________ pounds
- BUMPER Weight - Must be ≤ 15 pounds (-6kg). <R407> Red BUMPER ___________ Blue BUMPER ___________ pounds
- FRAME PERIMETER – Frame must be non-articulated. Minor protrusions ≤1/4” (6mm) OK. <R101>

Bumpers
- Coverage - BUMPER segments protect the entire FRAME PERIMETER, any gaps between segments < ½” (~1.3cm) <R401>
- Hard BUMPER parts - Defined by BUMPER backing, may not extend >1” (~25mm) beyond ROBOT frame. <R408-B>
- Support - No BUMPER segment may be unsupported by ROBOT structure/frame for a length > 8” (~20cm), Gaps ≤ ¼” (~6mm) may be wider than 8”. BUMPER segments must be supported by at least ½” (~13mm) of ROBOT frame at each end (< ¼” (~6mm) gap between segment and frame are OK) <R410 & Fig 8-8>
- Corners - Must be filled with pool noodle such that no “hard parts” are exposed. <R409 & Fig 8-7>
- Wood backing - Must use ¼” (~19mm) thick x 5±½” (~127 mm ± 12.7 mm) tall plywood, OSB, or solid robust wood backing w/out extraneous holes affecting structural integrity. (shallow clearance pockets and/or access holes are acceptable). <R408-A>
- Pool Noodles - Must use a pair of stacked 2½” nominal (2½” – 2 ¾”) pool noodles. Pool noodles may be any shape cross section, solid or hollow, but both must be identical in shape and density. <R408-C>. Must use a durable cloth cover secured as in Fig 8-6 cross section. <R408-D>
- Color - Must be able to display red or blue to reflect alliance color. <R405>
- Team number - displayed with Arabic numerals, min. font 4” (~11cm) tall x ½” (~13mm) stroke, in white, and be easily read from approximately 60’ (1828 cm) when walking around the perimeter of the ROBOT. No logos may be used for numerals. FIRST logos comparable to 2024 Virtual KOP may also be applied <R405 & R406>
- Attachment - Must be securely mounted when attached and be easily removable for inspection. <R404 & R408-G>
- Height - When ROBOT is on a flat floor, all BUMPER segments must reside entirely between the floor and 7½” (~19cm) above floor. They may not be articulated. <R402 & R403>

Mechanical
- No Sharp Edges or Protrusions that are a hazard for participants, ROBOTS, ARENA, or FIELD. <R202>
- No Prohibited Materials – E.g. sound, lasers (other than class 1), flammable gases, or untreated hazardous materials <R203>
- No Unsafe Energy Storage Devices - Carefully consider safety of all stored energy or pneumatic systems <R203>
- No Risk of Damage to Other ROBOTS - E.g. damaging, entangling, upending or adhering <G419 & R203>
- No Risk of Damage to FIELD – E.g. metal cleats on traction devices or sharp points on frame. <R201 & R202>
- No Risk of damage to Game Pieces – areas interacting with game pieces free of sharp or damaging surfaces <R206>
- Decorations - Cannot interfere with other ROBOTS’ electronics or sensors, be in spirit of “Gracious Professionalism”. <R203>

End Game – GAME PIECES can be removed from ROBOT and ROBOT from FIELD without power. <R204>

Stage Chain – ROBOT not designed to reduce working length of field chain (e.g. create slack or twist chain) <R106>

Electrical
- Components – None may be modified, except for motor mounting and output shaft, motor wires may be trimmed, window motor locking pins may be removed, and certain devices may be repaired with parts identical to the originals. PDP/PDH fuses may be replaced with identical fuses only. Servos may be modified per manufacturer’s instructions. <R503, R710>
- Battery - A single 12 volt, 17-18.2 Ah ROBOT battery, securely fastened inside ROBOT. <R601, R605, R606>
- Other Batteries – Integral to COTS computing device or camera or COTS USB < 100Wh (20,000mAh at 5V) and 5 Amp max output per port used for COTS computing device and accessories only. Small batteries for CMOS/RTC are OK. <R602>
- PDP/PDH Visibility – The single PDP/PDH, and PDP/PDH breakers must be easily visible for inspection. <R613>
- Main Breaker Accessibility – The single 120A main breaker must be readily accessible with labeling preferred. <R612>
- Allowable PD Breakers - Only AT2-A, VB3-A, MX5-A, MX5-L Series Snap-Action breakers or REV Robotics ATO (40A or lower) may be inserted in the PDP/PDH <R619>
- ROBOT Radio – A single Vivid Hosting VH-109 radio powered via a VRM +12 volt, 2 amp output, REV RPM, or directly from the PDP/PDH. The VRM/RPM or wiring must connect to the dedicated +12 volt output on the PDP/PDH. Radio LEDs are easily visible. <R616, R702, R707, R708>
- CAN BUS – The roboRIO and PDP/PDH must be connected via CAN wiring even if no other CAN devices are used. <R716>
- roboRIO Power – Only the roboRIO must be connected to dedicated power terminals on PDP/PDH. <R615>
2024 FRC Inspection Checklist

Team Captain: ____________________________  Team Mentor: ____________________________

We, the Team Mentor and Team Captain, attest by our signing below, that our team’s ROBOT was built after the 2024 Kickoff, and we are not aware of any rules it violates. We confirm that it and its MAJOR MECHANISMS are products of our team’s work. We understand that the LRI at this event may be consulted, at any time, for questions arising from ROBOT inspection.