

Inspection Checklist

Team Number: _____

<input checked="" type="checkbox"/>	ROBOT – Size	Rule #
	ROBOT is presented at inspection with all MECHANISMS (including all COMPONENTS of each MECHANISM), configurations, and decorations used on the ROBOT.	I303
	The ROBOT in all of its STARTING CONFIGURATIONS must fit within an 18" cube as it would start the MATCH.	R101
	ROBOT may not expand or reach outside of a 20" x 42" horizontal boundary at any time during the MATCH (may be hardware or software limited).	R104

<input checked="" type="checkbox"/>	ROBOT - SIGNS	Rule #
	ROBOT has two ROBOT SIGNS that are located on opposite or adjacent sides of the ROBOT and visible to FIELD STAFF from at least 12 feet away and meet minimal size requirements.	R401
	ROBOT SIGNS can indicate both ALLIANCE colors and meets markings requirements, unpowered.	R402
	Team number is displayed on ROBOT SIGNS and meets number size requirements, unpowered.	R403

<input checked="" type="checkbox"/>	ROBOT - Mechanical	Rule #
	ROBOT does not contain any COMPONENTS that could harm people, damage the ARENA, or damage other ROBOTS. This includes sharp edges, protrusions, or hazards to the ARENA elements.	R201, R202
	ROBOT does not contain devices that generate sound at a level sufficient to be a distraction.	R203 .B
	ROBOT does not contain materials that are hazardous (i.e., flammable materials/gasses, mercury switches, exposed untreated hazardous materials).	R203 .D, E, G, H
	ROBOT does not contain materials that would cause a delay of game if released (e.g., coffee beans).	R205
	ROBOT does not contain any closed air or hydraulic devices (i.e., gas springs, compressors, vacuum generating devices). Air-filled pneumatic wheels are exempt from this rule.	R207
	ROBOT does not contain prohibited COTS MECHANISMS (multi DoF, game task solving, ...).	R306, R307

<input checked="" type="checkbox"/>	ROBOT - Electrical	Rule #
	ROBOT does not contain more than 8 allowed motors and 12 allowed servos.	R503
	Actuators are not modified except as explicitly allowed.	R504
	Actuators are powered and controlled only from approved devices.	R505
	No relays, electromagnets, electrical solenoid actuators, or related systems.	R506
	Exactly 1 main battery pack of an approved type is on the ROBOT and it is properly connected to the main power switch, securely mounted.	R601, R606
	Exactly 1 approved main power switch must control all power provided by the ROBOT battery pack and must be properly labeled. Secondary switches downstream are allowed if labeled "secondary."	R609
	COTS USB batteries on the ROBOT remain isolated from the ROBOT power systems.	R602
	Fuses must not be replaced with fuses of higher rating than allowed, no self-resetting fuses allowed.	R610, R615
	If electronics are grounded to the ROBOT frame, the only approved methods are the REV or AndyMark resistive grounding strap and must be connected to a fully COTS XT30 COMPONENT.	R611
	CUSTOM CIRCUITS cannot provide >5V regulated power and cannot alter critical power paths. Voltage and current monitoring is okay, as long as the effect is inconsequential.	R613, R618
	Circuits are wired with the appropriately sized insulated copper wire (non-SIGNAL LEVEL wires).	R615
	All non-SIGNAL LEVEL wiring is consistently color-coded with different colors used for the positive (red, yellow, white, brown, or black with white stripe) and negative/common (black, blue) wires.	R616
	The ROBOT must be controlled via 1 ROBOT CONTROLLER (REV Control Hub via USB or RS485, or allowed Android device via USB). The ROBOT CONTROLLER must be visible for inspection.	R701, R704 R705, R711
	Only allowed USB devices connected to USB (no LEDs, etc.), webcams can only be single-sensor.	R714, R715
	Self-contained video recording devices, if used, must turn off or disable wireless communication.	R716

<input checked="" type="checkbox"/>	FIELD – OPERATOR CONSOLE Rules	Rule #
	The OPERATOR CONSOLE consists of only of one Android device (Circle): Motorola Moto G4 Play, Motorola Moto G5, Motorola G5 Plus, Motorola Moto E4, Motorola Moto E5, Motorola Moto E5 Play, or REV Driver Hub. If team is not from North America and has an alternate smartphone, circle here.	R901
	The touch display screen of the DRIVER STATION device is accessible and visible to FIELD STAFF.	R902
	No more than one (1) optional COTS USB external battery connected to the REV Driver Hub USB-C port, no more than one (1) USB hub connected to the smartphone Android Device.	R903
	The OPERATOR CONSOLE consists of no more than two of the allowed gamepads.	R904
	Does not contain more than 1 external USB hub.	R905 .A
	Does not contain non-decorative electronics not otherwise required.	R905 .B
	Does not exceed 3ft wide, 1ft deep and 2 ft tall (91.4cm by 30.5cm by 61.0 cm) excluding any items that are held or worn by the DRIVE TEAM during a MATCH.	R905 .C

DS	RC	OPERATOR CONSOLE and ROBOT CONTROLLER Software Rules	Rule #
		Communication between the ROBOT CONTROLLER and DRIVER STATION is only through the official RC and DS applications over the ROBOT CONTROLLER Wi-Fi.	R706
		Android smartphone(s), REV Driver Hub, and REV Control Hub are named with the official team number followed by an optional -A (or other letter) and -DS or -RC as appropriate.	R707
		Android smartphones (if used) have airplane mode & Wi-Fi enabled, and Bluetooth disabled.	R718 .B, C
		All remembered Wi-Fi Direct Groups and Wi-Fi connections on Android devices (smartphones and REV Driver Hub) have been removed, only ROBOT CONTROLLER Wi-Fi remains.	R718 .D
N/A		ROBOT CONTROLLER Wi-Fi is set to the correct channel (if required by the competition).	R710
N/A		REV Control Hub (if used) has Wi-Fi turned on, Bluetooth is turned off, and the password is different than the factory default value of “password” as seen in ROBOT Self-Inspect	R718 .A, C

<input checked="" type="checkbox"/>	FIELD – Power-On Operation	Rule #
	ROBOT CONTROLLER device properly connects with the DRIVER STATION device.	N/A
	ROBOT starts and stops when commanded by the DRIVER STATION device. Specifically, stop button must be able to immediately interrupt both AUTO and TELEOP OpModes.	G401 , G406

<input checked="" type="checkbox"/>	FIELD - General Notifications and Acknowledgements	Rule #
	Team understands that they must promptly proceed to the ARENA for their scheduled MATCH time as indicated on the MATCH schedule. It is the team’s responsibility to monitor for schedule changes.	G301
	Team knows that they are responsible for attaching the correct ALLIANCE specific ROBOT SIGN on two sides of their ROBOT before they approach the ARENA.	G303
	The team understands how to disable their ROBOT, if instructed to do so by a REFEREE.	G414
	Team understands no programming is allowed in the ARENA, including MATCH queue areas.	R706
	Team understands that troubleshooting or programming assistance from FIELD STAFF will be limited if team is not using at least the recommended minimum versions of SDK and device software.	R713

COMMENTS: _____
