

Inspection Checklist

Team Number: _____

<input checked="" type="checkbox"/> General	Rule #
ROBOT is presented at inspection with all MECHANISMS (including all COMPONENTS of each MECHANISM), configurations, and decorations used on the ROBOT.	I304
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"/> 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.	R203.F , R207
ROBOT does not contain prohibited COTS MECHANISMS (multi DoF, game task solving, etc.).	R303

<input checked="" type="checkbox"/> Electrical	Rule #
ROBOT does not contain more than 8 allowed motors and 10 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.	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
If electronics are grounded to the ROBOT frame, the only approved methods are the REV, SWYFT or AndyMark resistive grounding strap and must be connected to a fully COTS XT30 COMPONENT.	R611
CUSTOM CIRCUITS cannot provide >5V regulated power (except for LEDs) and cannot alter critical power paths. Voltage and current monitoring are 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. Exception: Integrated wiring and extensions that use the same colors as the integrated wiring are OK	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 may be connected to USB (no LEDs, etc.).	R714
Self-contained video recording devices, if used, must turn off or disable wireless communication.	R716

<input checked="" type="checkbox"/>	Control	Rule #
	The OPERATOR CONSOLE consists of only of one Android device (<i>Circle</i>): 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 the team is not from North America and has an alternate smartphone, inquire whether or not the team complies with the R704 orange box.	R901 , R704
	The touch display screen of the DRIVER STATION device is functional, accessible, and visible to FIELD STAFF.	R902
	The OPERATOR CONSOLE consists of no more than two of the allowed gamepads.	R903

<input checked="" type="checkbox"/>	Operation	Rule #
	The two self-inspect screens on the OPERATOR CONSOLE do not display any issues except for any app version warnings. (no red exclamation marks)	R707 , R708 R710 , R718

<input checked="" type="checkbox"/>	Sizing	Rule #
	The ROBOT, in its STARTING CONFIGURATION, fits within an 18 in. (45.70 cm) cube.	R101
	The ROBOT, at maximum mechanical extension, fits within an 18 in. (45.70 cm) horizontal square.	R105.A
	The ROBOT, at maximum extension, fits within a height of 38 in. (96.50 cm).	R105.C
	OPERATOR CONSOLE does not exceed 3ft wide, 1ft 2 in deep and 2 ft tall (91.4cm by 35.5cm by 61.0 cm) excluding any items that are held or worn by the DRIVE TEAM during a MATCH.	R904

PASS

INCOMPLETE

COMMENTS: _____

Revision History	
Revision	Description
25-26.1	2025-2026 Initial Season Release
25-26.2	Incorporating TU 11 (R105 and R904) changes in <i>Sizing</i> section

Inspection Checklist

Team Number: _____

<input checked="" type="checkbox"/>	General	Rule #
	機械人進行檢查時，必須呈現其在比賽中將使用的所有組件、配置及裝飾。	I304
	機械人必須具備兩個標誌 (ROBOT SIGNS)，且須位於機器人相對或相鄰的兩側。該標誌必須讓場地工作人員 (FIELD STAFF) 在至少 12 英尺 (約 3.6 公尺) 的距離外清晰可見，並符合最小尺寸要求。	R401
	標誌可同時用作指示兩側聯盟顏色並符合標記規範要求；且該標誌必須為無電力驅動。	R402
	標誌上須顯示隊伍編號，並符合編號尺寸規定；且該標誌必須為無電力驅動 (unpowered)。	R403

<input checked="" type="checkbox"/>	Mechanical	Rule #
	機械人不得含有任何可能傷害人員、損壞場地 (ARENA) 或損壞其他機械人的組件。這包括尖銳邊緣、突出物，或對場地元件構成危害的設計。	R201 , R202
	機械人不得含有會產生足以引起干擾之音量的裝置。	R203.B
	機械人不得含有任何可能傷害人員、損壞場地 (ARENA) 或損壞其他機械人的組件。這包括尖銳邊緣、突出物，或對場地元件構成危害的設計。	R203.D , E , G , H
	機械人不得含有任何一旦洩漏會導致賽程延誤的材料 (例如：咖啡豆)。	R205
	機械人不得含有任何封閉式氣壓或油壓裝置 (例如：氣壓彈簧/氣動撐桿、壓縮機、真空產生裝置)。充氣式氣壓輪胎 (Air-filled pneumatic wheels) 不受此限。	R203.F , R207
	機械人不得含有任何禁止使用的現成 (COTS) 機械 (例如：多自由度機械、能直接完成比賽任務的裝置等)。	R303

<input checked="" type="checkbox"/>	Electrical	Rule #
	機械人不得含有超過 8 個獲許可的馬達 (Motors) 以及超過 12 個獲許可的伺服機 (Servos)。	R503
	除非規則明確許可，否則不得對執行器 (Actuators) 進行任何改裝。	R504
	驅動器 (Actuators) 的電力供應與控制，必須僅來自於經認可的裝置。	R505
	禁止使用繼電器、電磁鐵、電磁螺線管驅動器或相關系統。	R506
	機械人上僅安裝了一組獲許可型號的主電池組 (Main Battery Pack)，且已正確連接至主電源開關並牢固安裝。	R601 , R606
	必須使用剛好一個 (Exactly 1) 獲許可的主電源開關，來控制由機械人電池所提供的所有電力。	R609
	機械人上的現成 USB 電池，必須與機械人的動力系統 (Power Systems) 保持完全隔離。	R602
	不得使用高於許可額定值的保險絲 (Fuses) 進行更換；且嚴禁使用自動復位保險絲 (Self-resetting fuses)。	R610
	若電子零件需要接地 (Grounded) 至機械人框架，唯一獲許可的方法是使用 REV、SWYFT 或 AndyMark 的電阻式接地帶 (Resistive Grounding Strap)，且必須連接至完全現成 (COTS) 的 XT30 組件。	R611
	自訂電路 (CUSTOM CIRCUITS) 不得提供超過 5V 的穩壓電源 (LED 燈除外)，且不得改變關鍵電力路徑 (Critical Power Paths)。在不產生實質影響的前提下，允許進行電壓與電流監測。	R613 , R618
	電路必須使用尺寸合適且具絕緣層的銅導線進行配線 (非信號等級 (SIGNAL LEVEL) 之導線)。	R615
	所有非信號等級 (non-SIGNAL LEVEL) 的電線必須擁有一致的顏色編碼。正極 (Positive) 與負極/公共端 (Negative/Common) 必須使用不同的顏色。[正極建議顏色：紅、黃、白、棕，或帶白色條紋的黑線] [負極建議顏色：黑、藍] [例外情況：零件自帶的整合式電線，以及與其顏色相同的延長線，不受此顏色編碼限制]	R616
	機械人必須僅由一個機器人控制器 (ROBOT CONTROLLER) 進行控制。該控制器可以是透過 USB 或 RS485 連接的 REV Control Hub，或是透過 USB 連接的獲許可 Android 裝置。機器人控制器必須安裝在檢查時清晰可見的位置。	R701 , R704 R705 , R711
	只有獲許可的 USB 裝置可以連接至 USB 接口 (嚴禁連接 LED 燈帶等非許可設備)。	R714
	若使用獨立式錄影設備，必須關閉或禁用其無線通訊功能 (Wireless communication)。	R716

<input checked="" type="checkbox"/>	Control	Rule #
	駕駛員控制台僅能包含一個 (1個) Android 裝置 (請圈選) : Motorola Moto G4 Play, Moto G5, Moto G5 Plus, Moto E4, Moto E5, Moto E5 Play 或 REV Driver Hub。若隊伍並非來自北美地區且使用了替代型號的智能手機, 請確認該隊伍是否符合 R704 規則中的橙色框條款。	R901 , R704
	駕駛員 (DRIVER STATION) 裝置的觸控顯示螢幕必須運作正常、易於觸及, 且能讓場地工作人員 (FIELD STAFF) 清晰看見。	R902
	駕駛員控制台包含的遊戲手掣 (Gamepads) 不得超過兩個, 且必須為獲許可之型號。	R903

<input checked="" type="checkbox"/>	Operation	Rule #
	駕駛員控制台上的兩個自我檢查 (Self-inspect) 頁面不得顯示任何問題 (除了應用程式版本警告外)。(螢幕上不能出現紅色感嘆號。)	R707 , R708 R710 , R718

<input checked="" type="checkbox"/>	Sizing	Rule #
	機械人在其『啟動配置』 (STARTING CONFIGURATION) 下, 必須能放入一個 18 英吋的正立方體中。	R101
	機械人在最大伸展狀態 (Maximum Mechanical Extension) 時, 仍必須能容納於一個 18 英吋的水平正方形範圍內。	R105.A
	機械人在最大伸展狀態 (Maximum Extension) 下, 高度必須能容納於 38 英吋之內。	R105.C
	操作員控制台 (OPERATOR CONSOLE) 的尺寸不得超過: 寬 3 呎、深 1 呎 2 吋、高 2 呎 (即 91.4 厘米 X 35.5 厘米 X 61.0 厘米)。此限制不包括比賽期間由驅動隊員 (DRIVE TEAM) 手持或佩戴的物品。	R904

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Revision History	
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25-26.1	2025-2026 Initial Season Release
25-26.2	Incorporating TU 11 (R105 and R904) changes in <i>Sizing</i> section