2015 – 2016 *FIRST*® RES-Q℠
Robot Inspection Checklist

Team Number: _____ Overall Robot Inspection Status (circle): **PASS / FAIL**

Team	Inspector	General Robot Rules	Rule #
		Robot is presented at inspection with all mechanisms (including all components of each mechanism), configurations, and decorations that will be used on the Robot during the competition.	<I7>
		The sum of all electronics used in the construction of all mechanisms do not exceed constraints specified in the Robot construction rules.	<I7>c
		Robot fits within the Sizing Box without exerting force on box sides or top	<RG03>
		Robot does NOT contain any components that could damage the *Playing Field* or other Robots	<RG02>a&b
		Robot does NOT contain hazardous, liquids, or materials that could delay the game	<RG02>c
		Robot poses NO obvious unnecessary risk of entanglement	<RG02>d
		Robot does NOT contain any sharp edges or corners	<RG02>e
		Robot does NOT contain animal-based, liquid, or gel materials	<RG02>f&g
		Robot does NOT contain materials that would cause a delay of game if released	<RG02>h
		Robot does NOT contain elements that are designed to electrically ground the Robot frame to the *Playing Field*.	<RG02>i
		Robot Motion Warning Label is attached if servo motors move during the Robot initialization routine	<RG03>b
		Main Power Switch OR *Core Power Distribution Module* (if used as main power switch) is installed properly, labeled, and readily accessible and visible to competition personnel	<RG04>
		All batteries are securely attached to the Robot	<RG05>
		Robot Controller is accessible and visible by competition personnel	<RG06>
		Electrical components are mounted such that they are protected from Robot-to-Robot contact	<RG06>
		Robot Flag Holder is present and adequately holds the flag during normal Robot operation	<RG08>
		Team number is visible from at least 2 sides (180 deg. Apart). Numerals must be at least 7.62cm high (3.0 inches), at least in 1.27cm (0.5 inches) stroke width	<RG09>
		Energy used by the *Robot*, (i.e., stored at the start of a MATCH), shall come only from approved sources	<RG10>
		Game Elements launched by the Robot do not exceed height and range constraints	<RG11>
		Robot Parts and Materials Rules	**Rule #**
		All components on the Robot are from allowable raw materials and COTS	<RM01>
		Robot has exactly one (1) Android device (Android ZTE Speed or Motorola Moto G (2nd generation) as the *Robot Controller*	<RE01>a.i.
		The *Robot Controller* Android device USB interface may only connect to the *Core* Power Distribution *Module*.	<RE01>b
		The *Driver Station* Android device USB interface only connects to a *Mini USB to OTG (On-The-Go) Cable* to an unpowered USB Hub (if *Team* is only using one joystick, this rule does not apply)	<RE01>c
		No more than one (1) *Core Power Distribution Modules* is allowed.	<RE01>d
		No more than two (2) *Device Interface Modules* are allowed.	<RE01>e
		No more than two (2) *Core Legacy Modules* are allowed.	<RE01>f
		Either a combination of Modern Robotics and Legacy HiTechnic motor and servo controllers (any combination) OR Legacy MATRIX motor and servo controllers (no more than two)	<RE01>g

		Robot Parts and Materials Rules Continued	Rule #
		Robot contains only specifically allowed electrical components and the electrical components have NOT been modified from their original state except as permitted by the rules	<RE02>
		Robot Controller is powered by its internal battery only, not by external power	<RE03>a
		Robot has exactly one (1) official TETRIX OR one (1) MATRIX main battery pack	<RE03>b.i.
		All powered modules are connected to a power output port of a *Core Power Distribution Module*	<RE03>d
		Fuses are not replaced with fuses of a higher rating than originally installed or according to the manufacturer's specifications. Fuses must not be shorted or exceed the rating of those closest to the battery	<RE03>e
		Light sources (e.g. LED's) may not be focused or directed in any way and powered using appropriate methods.	<RE03>g
		Maximum of eight (8) motors (in any combination) and twelve (12) servos, all controlled by HiTechnic or MATRIX controllers	<RE04>
		Allowed electronics are only powered by ports on the *Core Power Distribution Module* except for approved light sources and allowed sensors connected to the *Core Device Interface Module* or the *Core Legacy Module*	<RE05>e.i &ii
		Power, motor control, servo and encoder wires are the correct size	<RE05>g
		Power and motor control wires must use consistent color coding with different colors used for the Positive (red, white, brown, or black with a stripe) and Negative/Common (black or blue) wires.	<RE05>h
		Any additional electronics comply with the rules	<RE06>
		Video recording devices, if used, do not have the wireless communication capability turned on	<RE06>c
		***Robot Controller* Software Rules**	**Rule #**
		The FTC controller app is the default application, the application launches, and no other messages pop up	<RS07>
		Robot Controller's operating system is either version 4.2.x or 4.4.x (ZTE Speed) **OR** 4.2.x, 4.4.x, or 5.0.2 (Motorola Moto G 2nd Generation)	<RS04>
		The *Robot Controller* is set to airplane mode, and Bluetooth is turned off	<RS08>
		Robot Controller Android device is named with the official *Team* number followed by -RC	<RS02>
		Robot Controller Wi-Fi Direct device name does not include a newline character in the name	
		Robot is not connected to any local networks	
		The FTC Wi-Fi Direct Channel Changing App is installed on the *Robot Controller* (for ZTE Speed devices only)	<RS09>

General Comments or Reason(s) for Failure (if any):

I hereby state that all of the above is true, and to the best of my knowledge all rules and regulations of the *FIRST* Tech Challenge have been abided by.

Robot Inspector

Team Student Representative