**APPENDIX J**

OCCRA 2017: ROBOT INSPECTION WORKSHEET

Mechanical:

* APPEND B - cost constraint parts ($100 @) X\_\_\_\_\_\_\_\_\_\_\_

# Event # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# RB7

## Max:Size 132” (footprint) x 48”(Height) In start position \_\_\_\_\_

* **Entire robot within starting footprint \_\_\_\_**

## Weight (less than 115) \_\_\_\_\_\_\_\_\_

## W/pneumatics (Less than 120) \_\_\_\_\_\_

Fairness Forms \_\_\_\_\_\_\_\_\_\_\_\_

Inspector X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date \_\_\_\_\_\_\_\_\_

* APPEND B - additional materials X\_\_\_\_\_\_\_\_\_\_\_\_
* RB14 - Sharp edges and corners removed X\_\_\_\_\_\_\_\_\_\_
* RB8 - No precision machining X\_\_\_\_\_\_\_\_\_\_\_
* RB8 - No welding X\_\_\_\_\_\_\_\_\_\_\_\_
* APPEND C - Allowed motors (list power source)\_\_\_\_\_\_\_\_\_\_.
* RB6 – Min. of .75” floor clearance except at wheels X \_\_\_\_\_\_
* RB8 – C-Base Chassis or approved alternative X \_\_\_\_\_\_\_\_

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| **ALLOWED MOTORS (no limit) and their CONTROLLERS RB5** |
| DeWalt Drill motors \_\_\_\_\_\_ Vic/Talon \_\_\_\_\_\_\_\_ |
| CIM motors \_\_\_\_\_\_\_\_\_\_\_\_\_ Vic/Talon \_\_\_\_\_\_\_\_ |
| Keyang or Globe motors \_\_\_\_\_ Vic \_\_\_\_\_ or Spike \_\_\_\_\_ |
| Denso wiper motor or clutched lift-gate motor \_\_\_\_ Vic/Talon \_\_\_\_ |
| Pwr Sliding Motor may sub for Denso \_\_\_\_\_ Vic/Talon \_\_\_\_\_ |
| PG27,71,188 AM Gearmotor \_\_\_\_ Vic \_\_\_\_\_ or Spike \_\_\_\_\_\_\_ |
| BAG motor \_\_\_ Vic/Talon \_\_\_\_\_\_\_\_\_\_ |
| Other Motors? If more than 20A rating, must use Victor or Talon \_\_ |
| And must be from BaneBot, Robot Space, AndyMark or VEX \_\_\_\_\_ |
| Compressor \_\_\_\_\_\_\_\_\_ Relay \_\_\_\_\_\_\_\_\_\_\_\_ |

**Electrical:**

* RB5 - 1 Victor/Talon controller per CIM, Dewalt, BAG, Valeo/Denso/Sliding Door motor. X \_\_\_\_\_\_\_\_\_\_
* APPEND - Approved – batteries (18-A-Hr.rating) with approved chargers (2/4/6 amp). X \_\_\_\_\_\_\_\_\_\_\_
* RB3 - Battery terminals insulated/protected on all batteries. X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* CURR - Battery hold down strap or device. X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* CURR - Loose wires secured/risk of entanglement reduced. X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* RB4 - Correct gauge wire (14ga) or better for– motors – (6ga) battery – (22ga) sensors. X \_\_\_\_\_\_\_\_\_\_
* RB4 - Connectors properly installed/crimped/soldered (no bare/exposed wires). X \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* RB2 - Control box mounted/**accessible**/secured w/cover, Cortex must be visible. X \_\_\_\_\_\_\_\_\_\_\_\_\_
* RB3 – Cortex powered by 7.2V battery; must have 9V back-up battery X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* RB5 - Wires strained relieved as they enter the control box using the eye bolt. X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* RB2 &5 – 1 control boxes; no alteration of electrical components mounted in the box(s). X\_\_\_\_\_\_\_\_\_\_
* CURR - All circuits must be fused/breaker protect; No wire attach on battery side of fuse block. X \_\_\_\_\_
* RB5 - no modifications /controller or joysticks. X \_\_\_\_\_\_\_\_\_\_\_\_\_
* APPEND B - No electric components other than approved or provided. X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* RB3 - No grounding to chassis. Test w/meter from ground to frame. X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* RB4 – 80-Amp or 120Amp breaker supplied by OCCRA for main; 30A max. for branch circuits. X\_\_\_\_\_

**Pneumatics:**

* RB16 - Automotive relay to run the compressor – cannot be direct wired. X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* RB16- Only Thomas, AM1.1 pump, or the VIAIR 00090 compressor allowed X \_\_\_\_\_\_\_\_\_\_\_
* RB16 –Tubing must be 1/8” or ¼” tubing X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* CURR - Air tubing, securely routed. X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* RB16 - Bleed off valve accessible for transport. X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* RB16 - Pressure gauge and regulator mounted and visible on output stream of system. X \_\_\_\_\_\_\_\_\_\_
* RB16 – Cylinders and pneumatics storage devices, no fabrication, no modification. X \_\_\_\_\_\_\_\_\_\_\_\_\_
* RB16 - Demonstration of 60 PSI max output. X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Miscellaneous:**

* RB13 - Color Flag ½” PVC Pipe mount/clearly visible from all sides. X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* RB13 - Team Numbers (4”min.) – size and clearly visible from 3 sides. X \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* RB7 - No contact surfaces on chassis at angles less than 60 degrees. X \_\_\_\_\_\_\_\_\_\_\_