LoB WRO 2015 Check List

Items	Actions	Results
A. Inventory Check	**A1. Laptop and adaptor**	**?**
	A2. Module Bags (9 bags + 7 trays)	
	* "Body Frame & Back Wheels" bag + tray	**?**
	* "Brick Mount & Front Wheels" bag + tray	**?**
	* "Sensor Mounts" bag + tray	**?**
	* "Tubes" bag + tray	**?**
	* "Gates" bag + tray	**?**
	* "Tubes & Gates Mounts" bag + tray	**?**
	* "Positioning Jig" bag + tray	**?**
	* "Balls" bag	**?**
	* "EV3 USB Cable; EV3 Battery Charger & Tools" bag	**?**
	A3. Spare part box:	
	* 01 EV3 brick and battery cover	**?**
	* 02 Large motors	**?**
	* 02 Medium motors	**?**
	* 02 Color sensors	**?**
	* 12 Rechargeable AA batteries in 3 cases	**?**
	* 01 Big wheel	**?**
	* 01 Extra pingpong ball	**?**
	* 01 Extra USB cable	**?**
	* 05 EV3 brick cables	**?**
	* Many technic parts	**?**
	A4. Container box	**?**
	A5. USB drive for backup program	**?**
Items	**Actions**	**Results**
B. Module Construction	**B1. Body Frame & Back Wheels**	
	* Smoothen 2 back wheels	**?**

	B2. Brick Mount & Front Wheels	
	* Hear CLICK sounds when plugging cables to large motors	?
	B3. Sensor Mounts	
	* Line color sensor FLAT with mount	?
	* Hear CLICK sounds when plugging cables to 4 sensors	?
	B4. Tubes	
	* 4 long axles sticking out in the same length	?
	* 2 long axles on each tube are not TOO CLOSED	?
	B5. Gates	
	* Bended sides pointing outside	?
	B6. Tubes & Gates Mounts	
	* Hear CLICK sounds when plugging cables to large motors	?
	B7. Positioning Jig	
	* Check against back guard	?
Items	**Actions**	**Results**
C. Robot Assembly	**C1. Body frame and wheels**	
	* Front wheels' axles go THROUGH body frame	?
	* Back wheels go into the MIDDLE of large motors	?
	C2. Gyro sensor	
	* Flat and centerized	?
	* Cable goes THROUGH body frame	?
	C3. Line color sensor	
	* Emiting light off to the RIGHT a litte bit	?
	* Off the ground 2M	?

	C4. Back block color sensor	
	* Cable goes THROUGH body frame	**?**
	* Cable is secured BETWEEN two pins from gyro sensor	**?**
	C5. Brick and sensor cables	
	* Hear CLICK sounds when plugging sensor cables to brick	**?**
	C6. Front block color sensor	
	* Hear CLICK sound when plugging cable to brick	**?**
	* Cable does NOT force the FRONT sensor tilted off the ground	**?**
	* Secure FRONT guard	**?**
	C7. Large motors	
	* Cables go THROUGH long beams	**?**
	* Hear CLICK sounds when plugging large motor cables to brick	**?**
	C8. Main Robot	
	* Cables do NOT force BACK color sensor tilted off the ground	**?**
	* Secure BACK guard	**?**
	* Front wheels' axles go THROUGH body frame	**?**
	C9. Medium motors, tubes, and gates	
	* Cables HANG over the tubes' top holding beam	**?**
	* Hear CLICK sounds when plugging medium motor cables to brick	**?**
	* ALL cables do NOT interfere gates turning	**?**
	* Balls can NOT escape from the 4 long axles sticking out of the tubes	**?**
	* Secure 2 GATES and medium motors	**?**
Items	**Actions**	**Results**
D. Robot Test	**D1. Run "1 Read Blocks" program**	
	* Check battery level is FULL	**?**
	* Read BRICK screen instruction	**?**

	D2. Run "2 Calibrate Line CS" program	
	* Pick BRIGHTEST area for WHITE square and CYAN	?
	* Read BRICK screen instruction	?
	* Check CYAN and WHITE reading difference is LARGE enough	?
	D3. Run "3 Seek Follow Line" program	
	* Check Port View to see if gyro reading is sturdy	?
	* Check Mid-Point on BRICK screen if it is appropriate	?
	* Read BRICK screen instruction	?
	* Calibrate again if needed	?
	D4. Run "4 Release Balls" program	
	* Read BRICK screen instruction	?
	* Test release balls from LEFT tube first	?
	* Test release balls from RIGHT tube	?
	D5. Run "5 Release Pearls" program	
	* Read BRICK screen instruction	?
	* Load ALL 12 BALLS, back robot to the back wall of the GREEN course	?
	* ALL balls released and inside the GREEN course	?
	D6. Run "6 Mission" program	
	* Check Port View to see if gyro reading is sturdy	?
	* Set positioning jig touching the GREEN course's back wall, between first 2 WHITE lines	?
	* Secure ALL connecting pins: FRONT/BACK guards, GATES, FRONT/BACK WHEELS	?
	* Read BRICK screen instruction	?
	* Back the robot to the jig with back guard touching the TWO blocks of the jig	?
	* Run 3 times	?
Items	**Actions**	**Results**
E. Robot Idle Time	**E1. Recharge battery pack**	
	* Turn OFF brick	?
	* Unplug FRONT guard	?

	* Plug charger into battery pack, make sure 2 LIGHTS are ON	?
	* Place jig next to robot	?
	E2. Storage	
	* Unload and store 12 balls back to bag	?
	* Put ALL bags, trays back to the container	?
	* Put tools, EV3 USB cable back to the container	?
	* Put laptop and adaptor to backpack and carry out	?
Items	**Actions**	**Results**
F. Competition	**F1. Recharge battery pack**	
	* Unplug charger from battery pack	?
	* Plug in FRONT guard	?
	* Store battery charger back to container	?
	F2. Robot readiness	
	* Secure 2 FRONT wheels axles going THROUGH body frame	?
	* Secure FRONT guard	?
	* Secure LINE color sensor	?
	* Secure BACK guard	?
	* Gyro is flatten	?
	* Secure 2 GATES and medium motors	?
	* Secure and smoothen 2 BACK wheels	?
	* Cables underneath the body frame do not stick out	?
	* Check Port View to see if gyro reading is sturdy	?
	* Load 12 BALLS	?
	* Navigate to **"6 Mission"** program	?
	* Setup the jig and the robot to the back wall of the GREEN course, between 2 first WHITE lines	?
Items	**Actions**	**Results**
G. After Competition	**G1. Laptop and adaptor in backpack**	?
	G2. Robot+	

	* Fully assembled robot	?
	* Jig	?
	* 12 balls in bag	?
	* EV3 USB cable	?
	* Battery pack charger	?
	* Tools	?
	G3. Spare part box:	
	* 01 EV3 brick and battery cover	?
	* 02 Large motors	?
	* 02 Medium motors	?
	* 02 Color sensors	?
	* 12 Rechargeable AA batteries in 3 cases	?
	* 01 Big wheel	?
	* 01 Extra pingpong ball	?
	* 01 Extra USB cable	?
	* 05 EV3 brick cables	?
	* Many technic parts	?
	G4. Container box	?
	G5. USB drive for backup program	?