Factory Acceptance Test

Component	To be checked	Observation
OpenCR	Able to be powered by the LiPo Battery	Green LED lights up when connected to a power source, boot up tune being played
RPi	Able to turn on the RPi when connected to OpenCR	Red light turns on while green light flashes
	Can be connected to from the remote laptop	Terminal returns “Welcome to Ubuntu…” when “ssh ubuntu@<ip-address>” is run on terminal
	RPi is able to connect to the network (Wi-Fi)	RPi appears in the hotspot’s connected devices list
LiDAR	Able to spin and collect data consistently	Environment will be mapped on Rviz with slam toolbox
SG90 (1)	Able to rotate the rack and pinion to feed payload into flywheels	Platform goes up and down launcher tube smoothly
SG90+AMG8833 sensor	Able to scan for the heat sources	The sensor prints an 8x8 array of temperature when the test code is run
JGB37-520 x2 (Flywheel motors)	Able to shoot the ball above the wall	The flywheel shoots the ball when the test code is run.
Wheels	Able to move the bot in all directions freely.	Bot can be controlled properly when running ‘rteleop’
Ball caster	Able to roll in all directions freely.	Bot able to move around in all direction smoothly with ball caster attached
Structural Stability	Structural platforms and components installed correctly	Shake Turtlebot to verify all components are mounted securely
	Verify all fasteners installed and tightened	Verify fastener count are consistent with assembly document