Factory Acceptance Test

| Component | To be checked | Observation |
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| 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 |