2.4 Evaluation of Instrumentation

The instrumentation and test scaffolding used in this project were adequate for validating the chosen requirements. Helper functions (such as getAngle and getDistance) enabled verification of movement constrains, while randomly generated test data allowed for repeated and varied testing of unit and integration level tests.

However, there were limitations. Performance testing relied on course-grained timing which allowed for confirmation of the requirement but does not give insight into where the execution time is spent . This limits the ability to diagnose performance issues, such as bottlenecks.

Additionally, the randomly generated data may not reflect real-world or edge-case scenarios. More structured test data could improve observability.

Overall, the level of instrumentation is a balance between test effectiveness and implementation complexity but could be extended if more detailed analysis was required.