

Additional Tests

Error Handling Tests:

- Test the utility's behaviour when an error occurs during the movement of a robotic head like communication failure, hardware malfunction.
- Test how the utility displays and handles different types of errors such as connection errors, invalid target positions

Concurrency Tests:

- Test the utility's behaviour when multiple users try to access and control the robotic heads simultaneously.
- Test if the utility can handle concurrent move requests from multiple users without conflicts or errors.

Performance Tests:

- Test the utility's performance under different load conditions with moving multiple robotic heads simultaneously, continuous movement requests.
- Measure the time taken for robotic heads to reach target positions under various scenarios and compare against expected times.

Boundary Tests:

- Test the utility's behaviour when robotic heads are moved to extreme target positions with maximum tilt angles.
- Test if the utility handles boundary conditions gracefully and prevents robotic heads from exceeding physical limits.

UI Usability Tests:

- Test the intuitiveness and responsiveness of the user interface across different devices and screen resolutions.
- Test if the UI elements are properly aligned, labelled, and visually distinguishable for easy navigation and interaction.

Compatibility Tests:

- Test the utility's compatibility with different operating systems such as Windows and Linux.
- Test if the utility functions correctly with various web browsers or mobile devices if applicable.

Accessibility Tests:

- Test the utility's accessibility features using keyboard navigation, screen reader compatibility to ensure compliance with accessibility standards.

Localization Tests:

- Test the utility's behaviour when the language settings are changed.
- Verify if all UI elements, messages, and error prompts are correctly translated and displayed in different languages.

Robotic Head Integration Tests:

- Test the utility's compatibility and integration with different model brands of robotic heads.
- Verify if the utility can effectively control and communicate with robotic heads from various manufacturers.

Security Tests:

- Test the utility for potential security vulnerabilities with unauthorized access, data breaches.
- Verify if proper authentication and authorization mechanisms are implemented to protect sensitive functionalities and data.