# RISK REGISTER FOR 3<sup>rd</sup> YEAR PROJECT

| Project Title: | Human Arm Tracking Human Robot Interface | | Submission Date: | | 17/10/25 |
|---|---|---|---|---|---|
| Student Name: | Nicholas | Teague | | | |

| Project Risk | Severity | | | Potential | | | Score (Severity x Potential) | Mitigation Measures |
|---|---|---|---|---|---|---|---|---|
| | L | M | H | L | M | H | L=1, M=2, H=3 | |
| Repetitive Strain Injuries from robot operation | | x | | | x | | 4 | Limit testing sessions to less than 30 minutes, ensuring that the operator is adequately warmed up with stretches. Pay attention to muscle discomfort and fatigue, immediately stopping all activity if experienced. |
| Muscle strains from attempted movements beyond joint capabilities | | x | | | x | | 4 | Program software to show operator limits for joint positions, design control mapping to stay comfortably within human movement ranges. |
| Eye strain and postural fatigue | | | x | | x | | 6 | Take regular breaks from seated work, e.g. walking around the room, focusing eyes on a far away point, etc. |
| Mental exhaustion | | x | | | | x | 6 | Schedule regular breaks from work, and avoid working at obscene hours in the day. Vary work tasks, and try to maintain a sufficient work-life balance and sleep schedule. |
| Motion sickness | | x | | x | | | 2 | Minimise system latency, immediately stop tests if discomfort occurs. Avoid extended testing situations. |
| Collision with objects in workspace | x | | | | | x | 3 | Keep work area, especially areas in the workspace of the arm clutter-free. |