# #7 Project risks:

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| --- | --- | --- |
| **Rating** | **Impact Points** | **Probability Points** |
| Low | 0.25 | 0.25 |
| Medium | 0.55 | 0.5 |
| High | 0.8 | 0.75 |
| Very High | 0.95 | 0.9 |

## 1. Prone to corrosion:

If the mechanical components of the design are prone to corrosion, then the overall accuracy of the project will be compromised and replacing the components will cause the project to delay by at least 5 days.

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| --- | --- |
| **Mitigation Plan** | Use of materials that are corrosion resistant |
| **Contingency Plan** | Coating the components with paint |
| **Impact Rating** | High |
| **Possibility of Occurring** | High |

## 2. Failure of table:

If the table is subjected to more weight than expectation, then the table will buckle, and the project will be delayed by at least 5 days.

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| --- | --- |
| **Mitigation Plan** | Proper calculation and testing of the table before putting weight |
| **Contingency Plan** | Include a factor of safety |
| **Impact Rating** | High |
| **Possibility of Occurring** | Medium |

## 3. Electrical Interference:

If the electrical interference occurs during testing phase, the testing time may be delayed by at least 5 days.

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| --- | --- |
| **Mitigation Plan** | Design the machine’s electronics considering Faradays cage for zero interference |
| **Contingency Plan** | Place the electronics as far from Plasma Gun as possible to minimize effect |
| **Impact Rating** | Very High |
| **Possibility of Occurring** | High |

## 4. Delivery Delays:

If the procurement process for the delivery is delayed, the fabrication phase would-be put-on hold for as many days as the delivery has been delayed.

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| --- | --- |
| **Mitigation Plan** | Pre-order the raw materials from the vendors |
| **Contingency Plan** | Look for the material in local market |
| **Impact Rating** | Medium |
| **Possibility of Occurring** | Medium |

## 5. Equipment Failure:

If the equipment procured, especially delivered electronics, came out faulty, the testing and fabrication phases will be delayed by at least 3 days.

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| --- | --- |
| **Mitigation Plan** | Demand for a warranty and buy a little extra for less expensive equipment more likely to fail |
| **Contingency Plan** | Re-order and look for temporary replacements by renting the equipment for labs until delivery arrives |
| **Impact Rating** | High |
| **Possibility of Occurring** | Low |

## 6. Unaware of local manufacturers:

If the marketing of the project is not effective, the project could not catch the eye of the local manufacturers and thus lose its purpose.

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| --- | --- |
| **Mitigation Plan** | Detailed market plan for the local industry |
| **Contingency Plan** | Personal survey and meetings with local vendors |
| **Impact Rating** | Medium |
| **Possibility of Occurring** | Low |

## 7. Loosening of assembly:

If the components are not bolted properly, the fabrication phase may get delayed by at least 5 days.

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| --- | --- |
| **Mitigation Plan** | Proper tightening of bolts |
| **Contingency Plan** | Recheck the bolts once the final assembly is complete |
| **Impact Rating** | Low |
| **Possibility of Occurring** | Medium |

## Risks Priority:

|  |  |  |
| --- | --- | --- |
| **Risk** | **Priority Point (Impact \* Probability)** | **Priority Rating** |
| Prone to corrosion | 0.6 | Priority 2 |
| Failure of table | 0.4 | Priority 3 |
| Electrical Interference | 0.7125 | Priority 1 |
| Delivery Delays | 0.275 | Priority 4 |
| Equipment Failure | 0.2 | Priority 5 |
| Unaware of local manufacturers | 0.1375 | Priority 6 |
| Loosening of assembly | 0.125 | Priority 7 |