**Risk Register –** Integrated NPI Build Optimization Framework for Hardware Development

By

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**Name of Project:**

Integrated NPI Build Optimization Framework for Hardware Development

1. **Risk Register:**

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| --- | --- | --- | --- | --- | --- | --- |
| **Risk ID** | **Risk Description** | **Probability** | **Impact** | **Risk Level** | **Mitigation Strategy** | **Owner** |
| R-001 | Delays in project timeline | High | Missed milestones | High | Develop a detailed project schedule with buffer time; conduct weekly reviews. | Project Manager |
| R-002 | Limited data quality for simulations | Medium | Inaccurate results | Medium | Validate datasets before use; use multiple sources for simulated data. | Data Analyst |
| R-003 | Stakeholder misalignment | Medium | Misaligned deliverables | High | |  | | --- | |  |  |  | | --- | | Regular stakeholder reviews and approvals; ensure clear communication of expectations. | | Project Manager |
| R-004 | Resource constraints (time/personnel) | High | Delayed deliverables | High | Prioritize tasks; allocate additional resources if necessary. | Project Sponsor |
| R-005 | Tool limitations (e.g., Excel/Power BI) | Medium | |  | | --- | |  |  |  | | --- | | Reduced functionality | | Medium | Leverage additional tools (Python/Tableau) as needed; seek technical consultation. | Dashboard Developer |
| R-006 | Errors in risk framework predictions | Medium | Poor risk mitigation | Medium | Test and refine the framework with iterative simulations and feedback. | Risk Manager |
| R-007 | Scope creep | Low | Increased workload | Medium | Define and document scope clearly; get stakeholder sign-offs at every stage. | Project Manager |
| R-008 | Limited stakeholder engagement | Medium | Reduced buy-in | Medium | Schedule regular updates; involve stakeholders in key phases of the project. | Project Manager |
| R-009 | Integration challenges between workflows | Low | |  | | --- | |  |  |  | | --- | | Failed workflows | | Medium | Perform integration testing early in development; validate each workflow. | QA Team |
| R-010 | Vendor collaboration issues (simulated) | Low | Delayed forecasts | Low | Set clear expectations for vendors and align forecasts with realistic scenarios. | Supply Chain Team |