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

By

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**Name of Project:**

Integrated NPI Build Optimization Framework for Hardware Development

**Overview**

The Risk Register provides an updated record of identified risks, their impact, likelihood, and corresponding mitigation strategies. This document is continuously updated to reflect the current risk status throughout the project lifecycle.

**Risk Register**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Risk ID** | **Risk Description** | **Impact** | **Likelihood** | **Owner** | **Mitigation Plan** | **Status** |
| RSK-001 | Supplier delays affecting critical components delivery | High | Medium | Procurement Manager | Engage backup suppliers; monitor delivery closely | 🔄 In Progress |
| RSK-002 | Design documentation errors causing rework | Medium | Medium | Design Team Lead | Implement stricter peer reviews and QA checks | 🔄 In Progress |
| RSK-003 | Cost overrun due to fluctuating material costs | High | Low | Finance Manager | Lock pricing with vendors through fixed-price contracts | ✅ Managed |
| RSK-004 | Insufficient QA resources for testing phase | High | Medium | HR Manager | Recruit additional QA team members | ✅ Resolved |
| RSK-005 | Non-compliance with quality standards | High | Low | QA Lead | Conduct regular quality audits | ✅ Managed |
| RSK-006 | Delay in finalizing vendor contracts | Medium | High | Project Manager | Expedite negotiation process; engage legal team | 🔄 In Progress |
| RSK-007 | Stakeholder conflict on project scope | Medium | Medium | Stakeholder Manager | Conduct regular alignment meetings | 🔄 In Progress |
| RSK-008 | System integration challenges during testing | High | Medium | Integration Lead | Develop and test integration frameworks early | ⏳ Upcoming |

**Risk Prioritization Matrix**

|  |  |  |  |
| --- | --- | --- | --- |
| **Likelihood \ Impact** | **Low** | **Medium** | **High** |
| **High** | RSK-006 | RSK-002, RSK-007 | RSK-001, RSK-004, RSK-008 |
| **Medium** | RSK-003 | RSK-002 | RSK-005, RSK-006 |
| **Low** | RSK-003 | RSK-007 | RSK-005 |

**Key Risk Details**

**RSK-001: Supplier Delays**

* **Trigger:** Suppliers fail to deliver components on time.
* **Impact:** Delayed testing and deployment phases.
* **Mitigation Plan:**
  1. Identify and onboard backup suppliers.
  2. Include penalties for late delivery in contracts.
  3. Monitor progress through weekly supplier check-ins.

**RSK-002: Documentation Errors**

* **Trigger:** Incorrect or incomplete design documentation.
* **Impact:** Delays in approvals and rework.
* **Mitigation Plan:**
  1. Establish a robust peer review process.
  2. Assign QA resources to validate documentation before submission.

**RSK-008: System Integration Challenges**

* **Trigger:** Issues during system integration testing.
* **Impact:** Delayed testing phase and potential rework.
* **Mitigation Plan:**
  1. Develop integration test cases during the design phase.
  2. Assign experienced integration specialists to oversee testing.

**Risk Monitoring and Review**

|  |  |  |  |
| --- | --- | --- | --- |
| **Monitoring Activity** | **Frequency** | **Owner** | **Status** |
| Supplier delivery tracking | Weekly | Procurement Manager | 🔄 In Progress |
| Design documentation peer review | At each submission | Design Team Lead | 🔄 In Progress |
| Budget monitoring for procurement | Bi-weekly | Finance Manager | ✅ On Track |
| Integration framework testing | Before testing phase | Integration Lead | ⏳ Upcoming |

**Risk Updates and Notes**

* **New Risk Identified (RSK-009):** Potential resource unavailability during deployment due to overlapping projects.
  + **Owner:** Project Manager
  + **Mitigation:** Resource allocation planning and scheduling adjustments.
* **Resolved Risks:**
  + RSK-004: QA team expanded to handle workload.
  + RSK-003: Fixed-price contracts implemented to mitigate cost fluctuations.

**Risk Escalation Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Escalation Level** | **Trigger** | **Escalation Contact** | **Action Required** |
| **Level 1** | Minor delays (<1 week) | Project Manager | Monitor and adjust timelines. |
| **Level 2** | Significant delays (>1 week) | Project Sponsor | Approve additional resources or reallocate priorities. |
| **Level 3** | Major delays impacting milestones (>2 weeks) | Executive Sponsor | Revisit project scope and deadlines. |

**Approval**

|  |  |  |
| --- | --- | --- |
| **Role** | **Signature** | **Date** |
| Project Manager | [Signature] | [MM/DD/YYYY] |
| Risk Manager | [Signature] | [MM/DD/YYYY] |
| Project Sponsor | [Signature] | [MM/DD/YYYY] |