

Risk Assessment and Risk Management Plan

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6th March 2024

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Risk Assessment

Risk	Likelihood	Potential Im- pact	Risk Exposure
Technological Failure of Drones	5	8	40
Data Privacy and Security	7	9	63
Legal and Regulatory Challenges	6	7	42
Environmental Impact	4	7	28
Stakeholder Engagement and Partnership Development	5	6	30
Technological Advancements and Market Changes	6	8	48

Risk Management Plan

- Technological Failure of Drones:
 - Regular maintenance and calibration of drones.
 - Training drone operators on safety protocols and emergency procedures.
 - Utilizing backup drones and technology.
- Data Privacy and Security:
 - Implementing strong encryption and authentication protocols.

- Regular security audits and vulnerability assessments.
- Ensuring compliance with data protection laws and regulations.
- Legal and Regulatory Challenges:
 - Staying updated with local and international regulations regarding drone operations.
 - Engaging with regulatory bodies to address concerns and facilitate the project.
 - Ensuring all drone operations are conducted within the legal framework.
- Environmental Impact:
 - Conducting environmental impact assessments before drone operations.
 - Adopting sustainable practices for drone operations.
 - Engaging with local communities and stakeholders to mitigate environmental concerns.
- Stakeholder Engagement and Partnership Development:
 - Establishing clear communication channels with stakeholders.
 - Regular engagement and feedback sessions.
 - Offering incentives for stakeholder involvement and partnership.
- Technological Advancements and Market Changes:
 - Conducting market research and staying updated with technological advancements.
 - Being flexible and adaptable to changes.
 - Investing in continuous learning and development for the project team.

Risk Checklist

Risk	Risk Reduction Technique	Personal Shortfalls
Unrealistic time and cost estimates	Multiple estimation techniques; design to cost; incremental development; recording and analysis of past projects; standardization of methods	Staffing with top talent; job matching; team building; training and career development; early scheduling of key personnel
Developing the wrong software function	Improved software evaluation; formal specification methods; user surveys; prototyping; early user manuals	Improved software evaluation; formal specification methods; user surveys; prototyping; early user manuals
Developing the wrong user interface	Prototyping; task analysis; user involvement	Prototyping; task analysis; user involvement
Gold plating	Requirement scrubbing; cost benefit analysis; design to cost	Requirement scrubbing; cost benefit analysis; design to cost
Late changes to requirements	Change control procedure; incremental development	Change control procedure; incremental development
Shortfalls in externally supplied components	Quality assurance procedures; competitive design or prototyping; contract incentives	Quality assurance procedures; competitive design or prototyping; contract incentives
Real-time performance shortfalls	Simulation; benchmarking; prototyping; tuning; technical analysis	Simulation; benchmarking; prototyping; tuning; technical analysis
Development technically too difficult	Staff training and development; prototyping; technical analysis	Staff training and development; prototyping; technical analysis