

# Risk Management Table

Risk ID	Risk	Reqt.	Type	Cause	Mitigation	Likelihood	Consequence
R1	Hardware Failures	MF4, MF9	Technical	Battery drains too quickly	<ul style="list-style-type: none"> <li>- Stay in close contact with Hello Robot</li> <li>- Get a backup battery before hand</li> </ul>	4	4
				Firmware issues with specific hardware	<ul style="list-style-type: none"> <li>- Rollback to previous firmware</li> <li>- Perform system factory reset</li> </ul>	3	4
				Mechanical vibrations causes poor video feed	<ul style="list-style-type: none"> <li>- Improve gimbal design</li> <li>- Implement Digital/Optical stabilization</li> </ul>	4	1
R2	Slack in project schedule	MNF4	Schedule	Unavailability of team members due to personal reasons	<ul style="list-style-type: none"> <li>- Reschedule activities</li> <li>- Reassign tasks</li> <li>- Weekly scrums</li> </ul>	3	4
				Team members facing technical issues in their task	<ul style="list-style-type: none"> <li>- Parallelize work by assigning people with less workload</li> </ul>	3	3

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R3	Insufficient compute power	MF1, MF2, MF6	Technical	Heavy algorithms, underestimation of compute requirements	<ul style="list-style-type: none"> <li>- Add a better onboard computer</li> <li>- Shift to cloud development</li> <li>- Reduce requirements</li> <li>- Simplify algorithms</li> </ul>	3	3
R4	No support from Hello Robot	MNF4	Programmatic	NA	<ul style="list-style-type: none"> <li>- Get help from FAIR and other collaborators using stretch</li> </ul>	1	3
R5	Testing space becomes unavailable	MF3, MF4	Programmatic	NA	<ul style="list-style-type: none"> <li>- Switch to backup environment</li> <li>- Continue development in simulators till switch is complete</li> </ul>	2	4

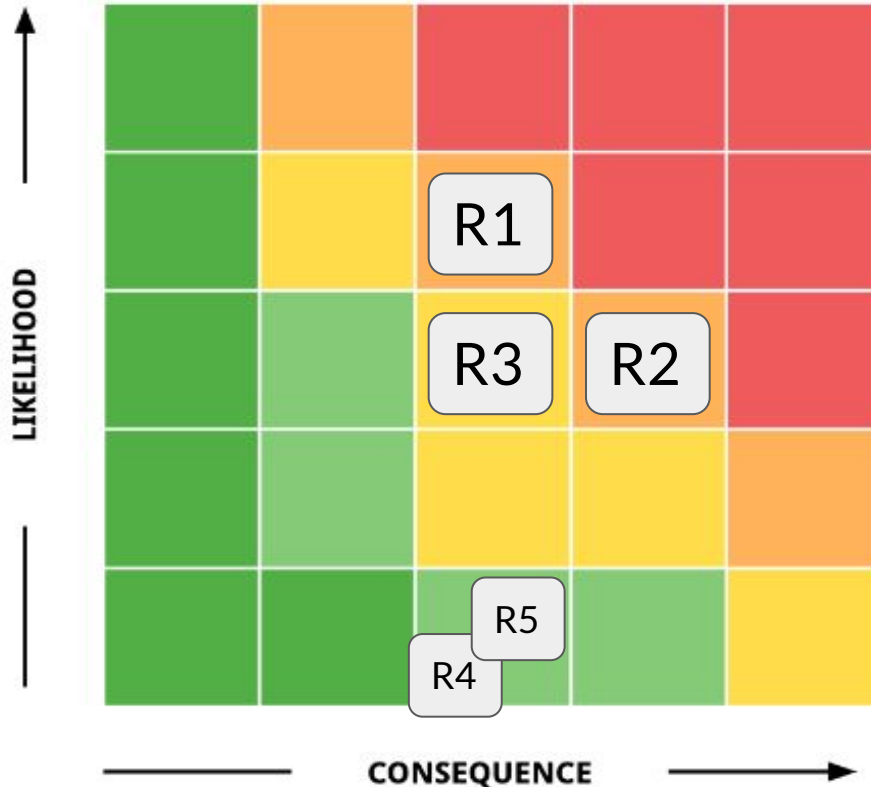
# Risk Management Table

S No	Risk	Cause	Mitigation	Likelihood	Consequence	Risk Exposure	Owner	Occurred yet?	Need of Action still?	Risk Management effective? Cite reason
1	Hardware Failure	Battery drains too quickly	<ul style="list-style-type: none"> <li>- Stay in close contact with Hello Robot</li> <li>- Get a backup battery before hand</li> <li>- Keep it plugged in and continue development</li> </ul>	4	4	16				Partly yes, because we were able to replace the fuse and buy backups almost instantly.
		Firmware issues with specific hardware	<ul style="list-style-type: none"> <li>- Stay in close contact with Hello Robot and previous team</li> <li>- Rollback to previous firmware</li> <li>- Perform system factory reset</li> </ul>	3	4	12				We have constantly been in touch with the Hello Robot team to get quick insights on the hardware issues we continue to face.
		Mechanical vibrations causes poor video feed	<ul style="list-style-type: none"> <li>- Improve gimbal design</li> <li>- Implement Digital/Optical stabilization</li> </ul>	5	1	5	Shivam	Yes	Yes	We have also been able to fetch 2 Stretch RE1s from Prof Oliver Kroemer and been able to transfer grippers between them to get them to work.

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		Mechanical vibrations causes poor video feed	<ul style="list-style-type: none"> <li>- Improve gimbal design</li> <li>- Implement Digital/Optical stabilization</li> </ul>	5	1	5	Shivam	Yes	Yes	We have also been able to fetch 2 Strech RE1s from Prof Oliver Kroemer and been able to transfer grippers between them to get them to work.

# Risk Likelihood-Consequence Table



R1: Hardware failures

R2: Slack in project schedule

R3: Insufficient compute power

R4: No support from Hello Robot

R5: Testing space is unavailable