

Sheet1

ID	Risk	effect	cause	likelihood	severity	importance	action to minimize risk	owner
1	failure to detect bus	The device fails to detect the bus and the user misses the bus	Tagging malfunction	2	5	10	bus detection redundancy	Mike
2	Navigation failure	The device navigates the user to an undesired location	Incorrect Vector Calculation	2	3	6	Check GPS data and thorough testing of Vector Calculation	Mike & Irem
3	Incorrect bus identification	The device detects the wrong bus and navigates the user to a different bus than the desired one	incorrect bus identification	1	10	10	redundancy and proper hand-shaking technique	Irem
4	Real-time time delay	The user misses the bus	The device fails to update the bus system information in time	2	10	20	System check and alternative detection method in case it is needed	Peng
5	Inability to install devices on current buses	the team does not have permission to install devices on the buses	Bus Rotation at RIT goes through many buses, and cannot install on all	1	6	6	Build detachable/portable bus device	Tracey
6	Weather conditions afflict user's ability to utilize the device	Cold weather and gloves make it hard to interface with the device	Gloves and winter clothing make it hard to interact with the device	3	3	9	Design the device to be weather condition friendly	Mohamed
7	user walking off-path	the user gets on a different path than the prescribed path by the device	human nature	2	5	10	Add a path correction algorithm to the device	Mike & Irem

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9	Equipment is too expensive	the equipment selected for during concept selection is too expensive	equipment price is too high	1	8	8	Find cheaper alternatives	dependent on portion of project
10	Intensity measurement error	The detection device detects the wrong intensity, which results in giving the wrong location and directions	the reader fails at detecting the right intensity	1	5	5	high refresh rate/ location confirmation and intensity calibration	Peng
12	GPS inaccuracy	gps location of the bus or the bus stop is not accurate enough to calculate the correct vector	inaccurate gps information	2	5	10	accuracy checks in software to make an accurate prediction of location	Mike & Irem
13	Inability to connect to GPS data stream	unable to get gps information of bus	Network goes down	1	7	7	attempt to reconnect to the network and regain data stream	Mike & Irem
14	RFID Tag delivery delay	delay in RFID testing	Delivery delay	2	5	10	Work on other parts of project using compass and accelerometer	Mohamed, Peng and Tracey

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15	RIFD incompatibility	RFID tags and readers are incompatible	Tag-reader incompatibility	1	7	7	Order compatible parts or drop RFID portion. Other option is to improve GPS algorithm	Team
16	RFID Tag Failure	Unable to detect RFID at the door	unable to detect the door of the bus	1	6	6	replace RFID tag	Mohamed
	likelihood	1	unlikely					
		2	could happen					
		3	very likely					
	Severity	1	minor					
		5	noticeable					
		10	severe					