

Team Members		Joseph Yu, Tarun Eswar, Charles Tang, Nevin Thinagar							
Description of Need		The device should locate lost items.							
#	Level	Requirement Type	Requirement Statement	Design #1 (Rover)	Design #2 (Drone)	Design #3 (Bluetooth)	Air Tag	Tile Tracker	Competitor #3 (Database)
1	1	Functional	The device shall identify the locations of items within an area with at least 90% accuracy.	Yes	Yes	No	No	No	No
2	1	Functional	The device shall reduce the frequency of searching for lost items by at least 50%.	Yes	Yes	Yes	Yes	Maybe	Yes
3	1	Functional	The device shall have a product lifespan of at least 1 year.	Yes	Maybe	Maybe	Maybe	Yes	Yes
4	2	Functional	The device shall conduct searches at least once a day.	Yes	Yes	Yes	Yes	Yes	Maybe
5	2	Cost	The device shall not be greater than a total of \$300.00 in cost.	Yes	Yes	Maybe	Maybe	Yes	No
6	2	Functional	The device shall sustain movement and data collection for at least 30 minutes.	Yes	No	No	No	No	No
7	3	Physical	The device shall be able to maintain functionality autonomously	Yes	Yes	Maybe	Maybe	Maybe	Yes
8	3	Functional	The device shall report any unresolvable errors to the client	Yes	Yes	Yes	Yes	Maybe	Yes
9	3	Physical	The device shall not obstruct the view of the client.	Maybe	Maybe	Yes	Yes	Yes	Yes
Description of Need		The device should communicate the location of the lost items to the client.							
#	Level	Requirement Type	Requirement Statement	Design #1 (Rover)	Design #2 (Drone)	Design #3 (Bluetooth)	Air Tag	Tile Tracker	Competitor #3 (Database)
1	1	Functional	The device shall respond to client requests for misplaced items within 10 seconds.	Yes	Yes	Yes	Yes	Yes	Yes
2	1	Functional	The device shall accept commands from natural language	Maybe	Maybe	No	No	No	No
3	2	Physical	The output device should be secured properly.	Yes	No	Yes	Yes	Maybe	No
4	2	Appearance	The user interface should be aesthetically pleasing.	Yes	Yes	Maybe	Maybe	Maybe	Yes
5	2	Functional	The device shall not store recordings for more than 10 minutes.	Yes	Yes	Yes	Yes	Yes	Yes
6	2	Physical	The device shall not take more than 1 cubic yard of space.	Maybe	Yes	Yes	Yes	Yes	Yes
7	3	Functional	The output should be customizable to suit the client.	Maybe	Maybe	No	No	No	No
8	3	Cost	The cost of maintenance and upkeeping should be less than \$100.00 per year.	Maybe	Maybe	No	No	No	No
Description of Need		The device should be safe to use.							

#	Level	Requirement Type	Requirement Statement	Design #1 (Rover)	Design #2 (Drone)	Design #3 (Bluetooth)	Air Tag	Tile Tracker	Competitor #3
1	1	Safety	The device shall not cause injury to the client(s).	Yes	Yes	Yes	Yes	Yes	Yes
2	1	Safety	The device shall not significantly impede the ability of the client to navigate their house.	Maybe	Maybe	Yes	Yes	Yes	Yes
3	1	Functional	The device shall not cause damage to any property on the household.	Yes	Maybe	Yes	Yes	Yes	Yes
4	2	Appearance	The device should have a display for showing lost items.	Yes	Yes	No	No	No	No
5	2	Functional	The device shall not capture unauthorized media of any private property without explicit permission by the client.	Yes	Maybe	Yes	Yes	Yes	Yes
6	2	Physical	The device shall be less than 10 pounds.	Maybe	Yes	Yes	Yes	Yes	Yes
7	3	Physical	The device shall have a strap for carrying.	Yes	Yes	No	No	No	No
8	3	Physical	The device shall be aesthetically pleasing.	Yes	Yes	Yes	Yes	Yes	No
9	3	Physical	The charging port shall be grounded and secure.	Yes	Yes	No	No	No	No
Description of Need		Additional Requirements							
#	Level	Requirement Type	Requirement Statement	Design #1 (Rover)	Design #2 (Drone)	Design #3 (Bluetooth)	Air Tag	Tile Tracker	Competitor #3
1	2	User	The user shall be able to use a basic application on a mobile phone or computer.	Yes	Yes	Yes	Yes	Yes	Yes
2	2	User	The user shall be able to pick up the device.	Maybe	No	Yes	Yes	Yes	Yes
3	3	User	The user shall be able to navigate their house and avoid the device in motion.	Yes	Maybe	Yes	Yes	Yes	Yes
4	2	Documentation	The device shall include a training manual.	Yes	Yes	Yes	Yes	Yes	Yes
5	3	Documentation	The device shall have a software API.	Yes	Yes	Yes	Yes	Yes	Yes