Brigham Young University
AUVSI Capstone Team (Team 45)

Requirements Matrix

ID	Rev.	Date	Description	Author	Checked By
RM-001	0.1	09-07-2018	Fall camp draft	Brady Moon	Jacob Willis
RM-001	0.2	09-14-2018	Revisions after design review	Derek Knowles	Kameron Eves
RM-001	1.1	10-08-2018	Expansion for stage approval	Kameron Eves	Brandon McBride

Product: UAS
Subsystem: N/A

Notes:
UAS = Unmanned Aerial System
UGV = Unmanned Ground Vehicle

	Market Requirements	Importance	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Market Responce
	Performance Measures	**Importance**	Flight Time	Post Processing Time	Autonomous Flight Time	Percent of Waypoints Hit	Average Minimum Distance to Waypoint	Percent of Obstacles Hit	Percent of Correct Characteristics Identified	Percent of Images Correctly Geolocated	Percent of Actionable Object	Percent of Objects Autonomously Submitted	Payload Drop Distance to Target Location	UGV Stop Distance to Target Location	Complies with AMA Safety Code	Penalties	
1	The UAS shall be capable of a timely completion of the mission.	10%	●								●					●	Good
2	The UAS shall be capable of autonomous flight.	20%			●	●	●	●				●				●	Very Good
3	The UAS shall be capable of avoiding static obstacles.	20%						●								●	Very Good
4	The UAS shall be capable of visual object classification.	20%							●	●	●	●				●	Very Good
5	The UAS shall be capable of delivering a payload.	20%					●						●	●		●	Very Good
6	The UAS shall be capable of safe operation.	10%					●								●	●	Good
		Importance	6%	2%	8%	2%	10%	20%	4%	6%	6%	4%	10%	10%	10%	2%	
	Lower Acceptable		3	0	3	0	0	0	0	0	0	0	0	0	Y	0	
	Ideal		20	0	20	100	0	0	100	100	100	100	5	0	Y	0	
	Upper Acceptable		30	10	40	100	100	100	100	100	100	100	75	10	Y	15	
	Units		Minutes	Minutes	Minutes	Percent	Feet	Percent	Percent	Percent	Percent	Percent	Feet	Feet	Yes/No	Count	