

Brigham Young University AUVSI Capstone Team (Team 45)

Requirements Matrix

ID	Rev.	Date	Description	Author	Checked By		
RM-001	0.1	09-07-	Fall camp	Brady Moon	Jacob Willis		
		2018	draft				
RM-001	0.2	09-14-	Revisions after	Derek Knowles	Kameron Eves		
		2018	design review				
RM-001	1.0	10-08-	Expansion for	Kameron Eves	Brandon McBride		
		2018	stage approval				
RM-001	1.1	10-08-	Reordered re-	Jacob Willis	Brady Moon		
		2018	quirements to				
			match priority				



				Market Responce	Very Good	Very Good	Very Good	Very Good	Good	Good				
JunoO			Penalties		•	•	•	•	•	•	2%	0	0	19
oN/s9Y		y Code	Complies with AMA Safe	13					•		10%	Α.	٨	٨
Feet	uc	rget Locatio	ST of Stop Distance to Ta	12				•			10%	0	0	01
feet	noite	Target Loc	Payload Drop Distance to	1				•			10%	0	9	9/
Percent	pettimdi	omously Su	Percent of Objects Auton	9	•		•				. %4	0	100	100
Percent	ju ju	itted in Fligh	Percent of Objects Subm	6			•			•	%9	0	100	100
Percent	pəte	Percent of Images Correctly Geolocated		œ			•				9 %9	0	100	100
Percent	bəilifnə	Percent of Correct Characteristics Identified		7			•				4%	0	100	100
Percent			Percent of Obstacles Hit	9	•	•					20%	0	0	001
feet	fnio	ce to Wayp	Average Minimum Distan	2	•			•	•		10%	0	0	100
Percent			Percent of Waypoints Hit	4	•						5%	0	100	100
Minutes			Autonomus Flight Time	က	•						8%	3	20	040
Minutes			Post Processing Time	7						•	2%	0	0	10
Minutes			Flight Time	-						•	%9	3	50	30
stinU			Performance Measures	Importance	20%	20%	20%	20%	10%	10%	Importance 6%	Lower Acceptable	lsebl	Upper Acceptable
	Product: UAS Subsystem: N/A	Notes: UAS = Unmanned Aerial System UGV = Unmanned Ground Vehicle		Market Requirements	The UAS shall be capable of autonomous flight.	The UAS shall be capable of avoiding static obstacles.	The UAS shall be capable of visual object classification.	The UAS shall be capable of delivering a payload.	The UAS shall be capable of safe operation.	The UAS shall be capable of a timely completion of the mission.				

Figure 1: Top-level requirements matrix for the unmanned aerial system.