



BRIGHAM YOUNG UNIVERSITY  
AUVSI CAPSTONE TEAM (TEAM 45)

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## UGV Requirements Matrix

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ID	Rev.	Date	Description	Author	Checked By
RM-001	0.1	10-23-2018	Initial requirements	Jacob Willis	Brady Moon
RM-001	1.1	10-26-2018	Better performance measures	Jacob Willis	Kameron Eves

	Product: UAV Subsystem: PAYLOAD/Unmanned Ground Vehicle (UGV)	Subsystem Performance Measures	Units
	Notes: *normalized by the fuselage diameter cubed **normalized by chord	Drop mechanism mass	kg
		Weight mechanism can support	N
		Aircraft internal volume consumed*	%
		Mounting distance from aircraft CG**	%
		Stowed drop mechanism drag	N
		Maximum landing velocity	m/s
		UGV landing distance from target	m
		Rule violations	cnt
	Target Design Requirements	Importance	
1	Complies with competition rules	5	
2	Capable of lowering the payload to the ground	5	
3	Lands UGV within landing zone	3	
5	Delivers UGV without damage	3	
6	Deployable from airframe	4	
7	Does not interfere with takeoff/landing	3	
8	Causes minimal aerodynamic interference	3	
9	Drop mechanism does not interfere with UGV movement	2	
		Upper Acceptable	Ideal
		Lower Acceptable	

Figure 1: Requirements matrix for the subsystem which will deliver the UGV to the ground.