



BRIGHAM YOUNG UNIVERSITY  
AUVSI CAPSTONE TEAM (TEAM 45)

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## Unmanned Ground Vehicle 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
RM-001	1.2	10-26-2018	Edits after design review	Brady Moon & John Akagi	Kameron Eves
RM-001	2.0	02-20-2019	Added measured values	Derek Knowles	Brandon McBride
RM-001	2.1	03-01-2019	Corrected measured values	Jacob Willis	Brandon McBride
RM-001	2.2	04-05-2019	System refinement measured values	Jacob Willis	Derek Knowles

# Unmanned Ground Vehicle Requirements Matrix

Product: UAV Subsystem: PAYLOAD/Unmanned Ground Vehicle (UGV)		Subsystem Performance Measures							Units
Target Design Requirements		Importance	1	2	3	5	6	7	
1	Complies with competition rules	5	●					●	Good
2	Capable of lowering the payload to the ground	5	●	●					Very Good
3	Lands UGV within landing zone	3				●	●		Neutral
5	Delivers UGV without damage	3		●		●		●	Good
6	Deployable from airframe	4			●				Very Good
7	Does not interfere with takeoff/landing	3	●						Very Good
8	Causes minimal aerodynamic interference	3							Good
9	Drop mechanism does not interfere with UGV movement	2				●	●		Very Good
Measured	Predicted	Upper Acceptable	Ideal	Lower Acceptable					
0.016	0.018	0.6	0.1	0					
3.43	3.36	50	1.3	0.6					
4140	4500	5000	0	0					
3	4	5	1	0					
17.7	10	23	0	0					
0	0	1	0	0					

\*To be measured during system refinement stage

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