Brigham Young University
AUVSI Capstone Team (Team 45)

Last Year's Performance

ID	Rev.	Date	Description	Author	Checked By
DJ-006	0.0	10-03-2018	Initial Draft	Kameron Eves	Ryan Anderson
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Introduction

As our objective statement states, the goal of our capstone team is to improve upon last year's design. Therefore, an important consideration in developing requirements and key success measures is the performance of last years team. Analysis of this performance will reveal which areas require the most development as well as which areas are already optimized.

Last Year's Performance

Discussion

As shown in Table 1, last year's team performed very well in the Autonomous Flight section and the Operational Excellence section. However, they underperformed in the Timeline, Obstacle Avoidance, Object Classification, and Air Drop sections. This year, we have specifically assigned subteams to focus on the Air Drop and Object Classification, respectively, since these are the two areas in need of the largest improvement. Because Object Detection was the primary obstacle to last year's performance in the Timeline section, improving Object Detection performance should also allow improve the Timeline section for this year.

*Table 1: The results from last year's mission tabulated. Category Scores are scoring weights from last year's competition rules, with each subsection's Category Score given as a percentage of its section. Last year's results are shown on the same scale as it's corresponding section. E.g., a perfect performance means that the percentage listed under **Last Year's Results** exactly matches the corresponding section percentage listed under **Category Score**. All of last year's results are rounded to the nearest integer.*

Category	Category Score	Last Year's Results
Timeline	**10%**	**0%**
Mission Time	80%	2%
Timeout	20%	0%
Autonomous Flight	**20%**	**16%**
Autonomous Flight	40%	36%
Waypoint Capture	10%	10%
Waypoint Accuracy	50%	42%
Obstacle Avoidance	**20%**	**10%**
Object Classification	**20%**	**4%**
Characteristics	20%	6%
Geolocation	30%	0%
Actionable	30%	15%
Autonomy	20%	0%
Air Drop	**20%**	**0%**
Operation Excellence	**10%**	**8%**
Total	**100%**	**38%**