

DRONE CHALLENGE (UAV)

2023 & 2024 OFFICIAL RATING FORM HIGH SCHOOL

Judges: Using minimal (1-4 points), adequate (5-8 points), or exemplary (9-10 points) performance levels as a guideline in the rating form, record the scores earned for the event criteria in the column spaces to the right. The X1 or X2 notation in the criteria column is a multiplier factor for determining the points earned. (Example: an “adequate” score of 7 for an X1 criterion = 7 points; an “adequate” score of 7 for an X2 criterion = 14 points.) A score of zero (0) is acceptable if the minimal performance for any criterion is not met.

Go/No Go Specifications

- Before judging the entry, ensure that the items below are present; indicate presence with a check mark in the box.
- If an item is missing, leave the box next to the item blank and place a check mark in the box labeled ENTRY NOT EVALUATED.
- If a check mark is placed in the ENTRY NOT EVALUATED box, the entry is not to be judged.

- TIER 1 – Drone/Welding Blankets
- TIER 2 – USB Portfolio
- ENTRY NOT EVALUATED

TIER 1 – TESTING OF DRONE (60 points)					
Evaluation: Completion of predetermined challenge is used to determine ranking. Time that the challenge is completed in is used to break ties.					
1st: 60 Points	2nd: 55 Points	3rd: 50 Points	4th: 45 Points	5th: 40 Points	6th: 35 Points
7th: 30 Points	8th: 25 Points	9th: 20 Points	10th: 15 Points	11th: 10 Points	12th-16th: 5 Points
TIER 1 – TESTING OF DRONE SUBTOTAL (60 points)					

Rules violations (a deduction of 20% of the total possible points for the above sections) must be initialed by the judge, coordinator, and manager of the event. Record the deduction in the space to the right.

Indicate the rule violated: _____

TIER 2 – PORTFOLIO (80 points)			
CRITERIA	Minimal performance	Adequate performance	Exemplary performance
	1-4 points	5-8 points	9-10 points
Portfolio Components (X1)	The portfolio is unorganized and three (3) or more components or sections are missing.	The portfolio is generally well organized and may be missing only one (1) or two (2) components or sections.	The portfolio is exceptionally well organized and contains all required components or sections.
Photo Log (X1)	There are little photos of the drone construction/components installation are not included and/or captions are not present on any of the photos.	Most photos of the drone assembly/testing are included and most captions are present.	All photos of the drone assembly/testing are included and captions are present.
Wiring Diagram (X1)	The wiring diagrams are not complete and/or many of the elements missing.	The wiring diagrams are present but may be missing several key components and detailing	All wiring diagrams are complete and correct, with all components and detailing.

Record scores in the column spaces below.

TIER 2 – PORTFOLIO (80 points) – continued			
Programming Explanation/Description (X1)	The explanation /description is unorganized and three (3) or more details or descriptions are missing.	The explanation /description is generally well organized and may be missing only one (1) or two (2) details or descriptions	The explanation /description is exceptionally well organized and contains all required details and descriptions
Engineered Drawings (X1)	The engineered drawings are not complete, with many of the required elements missing.	The engineered drawings are present but may be missing several required key components and detailing	All engineered drawings are complete and correct, with all components and detailing.
Bill of Materials (X1)	Bill of Materials is included, but more than three (3) materials are missing.	A Bill of Materials is included, with one (1) or two (2) materials missing; Bill of Materials is generally organized.	All components of the Bill of Materials is included and highly organized.
Drone Flight Regulations (X1)	The report is unorganized and three (3) or more details about drone flight regulations are missing.	Report is generally well organized and may be missing one (1) or two (2) details about information about local, regional, and federal drone flight regulations.	Report is well organized and contains information about local, regional, and federal drone flight regulations.
Plan of Work Log (X1)	The Plan of Work log is not complete.	The Plan of Work log is included and mostly complete.	The Plan of Work log is complete and fully documents project work.
TIER 2 – PORTFOLIO SUBTOTAL (80 points)			

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Indicate the rule violated: _____

PRELIMINARY SUBTOTAL (140 points)

SEMIFINAL INTERVIEW (40 points)			
CRITERIA	Minimal performance	Adequate performance	Exemplary performance
	1-4 points	5-8 points	9-10 points
Knowledge (X2)	Participants seem to have little understanding of the concepts in their project; answers to questions may be vague.	Participants exhibit a general understanding of the concepts in their project.	Participants show clear evidence of a thorough understanding of the concepts in their project.
Articulation (X1)	Communication of the project is unclear, unorganized, and/or illogical; leadership and/or 21st century skills are not evident.	Communication of the project is somewhat logical and clear; leadership and/or 21st century skills are somewhat evident.	Communication of the project is clear, concise, and logical; leadership and/or 21st century skills are clearly evident.
Team Participation (X1)	The majority of the delivery is made by one (1) member of the team; the partners may be disengaged from the Interview	Team members are generally engaged in the process, though one member may take on more responsibility than the others.	Team members are actively involved in the Interview and responses to interview questions; there is shared responsibility on the part of team members.
SEMIFINAL INTERVIEW SUBTOTAL (40 points)			

Record scores in the column spaces below.

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Indicate the rule violated: _____

To arrive at the **TOTAL** score, add any subtotals and subtract rules violation points, as necessary.

TOTAL (180 points)

Comments:

I certify these results to be true and accurate to the best of my knowledge.

JUDGE

Printed name: _____ Signature: _____