



Weber County Drone Contest Play Book

The Expedition Field will include a 10' x 10' screened canopy with a 10' x 10' printed map inside. Various props will be placed on the mat or suspended from the canopy. Props will be used to facilitate missions. These props may change locations at different competitions.

Each participant (Pilot) will have two 5 minute expedition rounds to complete as many mission cards as possible, with a 5 minute break in between these rounds. Each mission has a point value associated with it. The Flight Judge will keep track of completed missions and points awarded. Points will be counted for complete missions only.

The Flight Timer will keep track of each Pilot's mission with a check mark as well as track the expedition time and give a warning at the four-minute mark on each flight.

After completing the first expedition, the Pilot will have a 5 minute break to reflect and evaluate their expedition, make needed changes to their plan and strategy, and change the battery.

For a mission to receive points, the Pilot must take off from mission control, fly the mission as described on the mission card, and then return and land at mission control. Multiple missions cannot be completed at the same time, and the Pilot must return to mission control between each mission.

If the Pilot completes 5 successful missions, they will receive a 100 point bonus, as indicated by the Contest Score Card. Successful missions do not need to be concurrent, but must be completed in the same round. Refer to the Contest Score Card for all missions.

If the Pilot has to enter the tent to retrieve the drone, the mission will end, and the Pilot will receive no points. Once the Pilot returns to the cockpit, the Pilot can choose to retry the mission to keep the no-point score and move onto a different mission.

If the Pilot crashes the drone but lands so they can launch from their crash site, the pilot may complete the mission but will receive a 25-point penalty on the mission score.

If the Pilot's drone loses battery during flight time, they may return to mission control, switch out the drone/battery, and continue the mission. Time **will** stop for this change (it will not stop during the state competition).

When landing a drone during the mission, the whole drone does not need to touch the designated landing area; as long as part of the drone touches the designated landing area, it is counted as a successful landing.



Once both expeditions have been completed, the Flight Judge will give the participant their Drone Challenge Score by taking the highest of the two scores. The lower score will be dropped.

There will be a prize for the top three scores. In the case of a tie, we will take the highest points from both rounds. The winners will be announced the following Monday via email.

For this competition, we will be tandem competing. Two participants are assigned to a half hour block. Participant A will complete their first 5 minute expedition. Participant B will then complete their first expedition while Participant A has a break to reflect and evaluate their strategy. Afterward, Participant A will complete their second expedition while Participant B has a break to reflect before their second expedition.

Any unaddressed rules or judgment calls will be referred to the Flight Commander by the Flight Judge. All decisions are final.



Weber County Drone Contest Score Card

Pilot's Name: _____

Mission #	Mission Name	Description	Pts Possible	Round 1		Round 2	
				Attempt	Points Earned	Attempt	Points Earned
1	Remove Debris	Blow ping pong balls out of the loading zone.	200				
2	Rock Field Sample	Land on the Rock Field and take a picture.	300				
3	Polar Ice Caps	Land on the Polar Ice Caps and take a picture.	300				
4	Rover Rescue	Land next to the Rover on Mars and take a picture.	300				
5	Weather Station	Hover by the weather center and take a picture of the data board.	400				
6	Lost Crew Members	Hover to take a picture of the lost crew members by the cave.	400				
7	Olympus Mons	Fly to Olympus Mons and take a picture of the elevation.	400				
8	Moon Video	Take a video of the flight around the farther moon and record the symbol.	500				
9	Moons Exploration	Fly around both moons and take a picture of each moon.	600				
10	Who's Been Here?	Take a picture of all three flags found at various locations.	900				
11	Sensor Repair	Manipulate the drone through the Sensor Repair Gate and land on the chair.	1000				
12	The Exit Portal	Fly through each ring in the order RED, BLUE, YELLOW	1000				
Bonus	5 Missions Bonus	Complete 5 missions for 100 bonus points	100				
				Total:		Total:	

