Carnegie Mellon University — Environmental Health & Safety — FIRE | LAB | WORK	**Environmental Health and Safety** **Uncrewed Aircraft Systems (UAS) / Drone Program - Pre-Flight Checklist**
Date of Issuance: 10/25/22	**Revision Date:**
Revision Number: Initial	**Prepared by:** UAS/Drone Committee and Environmental Health and Safety

Hull and Propellers
- ☐ All hull screws are securely fastened to the body of the UAS/Drone.
- ☐ All propellers are securely fastened to the motors.
- ☐ Transmitters and accompanying wires are securely fastened to the hull.
- ☐ Camera(s), gimbal(s), and accompanying wires are securely fastened to the hull.
- ☐ There are no loose parts, wires, screws, or extremities that can fall from the UAS/Drone.

Safety Checks
- ☐ The operator performed a visual review of the area of operation.
- ☐ The operator is aware of aerial obstructions (i.e., poles, structures, utility wires, trees).
- ☐ The operator clearly marked a take-off/landing zone and an emergency landing zone.
- ☐ The operator has clearly announced that a UAS/Drone is preparing for flight.
- ☐ The operator has ensured no nonparticipating persons or large animals are near the take-off/landing and emergency landing zones.
- ☐ Weather permits the safe operation of the UAS/Drone.

Power to System
- ☐ The battery being placed into the UAS/Drone has a full capacity charge.
- ☐ The batteries inside the RC controller have a sufficient charge.
- ☐ There is a spare UAS/Drone battery with a full charge.
- ☐ There are spare batteries for the RC controller with a full charge.
- ☐ The UAS/Drone battery is securely fastened within the UAS/Drone hull.
- ☐ The UAS/Drone powers up completely indicating a normal audible chime of operability.
- ☐ All lights on the UAS/Drone are operating normally.

RC/WIFI
- ☐ There is a steady connection between the RC controller and the UAS/Drone.
- ☐ The UAS/Drone is responding accurately and efficiently to RC commands.
- ☐ RC Controller is set to appropriate control mode.
- ☐ Onboard computers are connected and functional.
- ☐ Data logging if any is activated.

Satellite Connectivity
- ☐ UAS/Drone is indicating full satellite/GPS connectivity.
- ☐ UAS/Drone has set the "home" location to include altitude and speed.
- ☐ Following take-off, UAS/Drone successfully completes a 10-second unassisted hover in Position Hold mode.

Miscellaneous
- ☐ Firmware versions are correct on the UAS/Drone and transmitter.
- ☐ The onboard computers have correct versions of code compiled and tested.
- ☐ The flight log is updated.