

## Test Methods for Evaluating Aerial Drones Safety | Capabilities | Proficiency RobotTestMethods.nist.gov

VERSION 2023A



TARGET GAPS (1 pt each).

s the trial to ensure safety.

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## LEVEL 4 | OBSTRUCTED SCORABLE SCENARIOS

Perform the designated flight paths to triangulate around dual bucket rails in various orientations. Align with perpendicular buckets then angled buckets. Use zoom and exposure control to identify targets inside the buckets.

- All sequences have 1–10 positions with 20 alternating white and black buckets to score:
- Score ALIGNMENT POINTS by capturing a SINGLE IMAGE of the inscribed rings to verify alignments during or after the trial: UNBROKEN RINGS (5 pts), BROKEN RINGS (1 pt).
- Score ACUITY POINTS by identifying and calling out the 5 increasingly:
- Faults for extreme deviations from the intended flight path or contact
- Timer starts at launch and ends after the last task is completed. Trial minutes to complete all 5 tests) although organizations may set their c

**Obstructed Search Scenarios** Obstruct ios Day and Night Trials Day and N USE SETS OF 5 "OFFSET" DU/ Standard Test Methods for Small Unmanned Aircraft S HORIZONTALS DISTRIBUT ASTM International Standards Committee on Homeland Security Applica Response Robots (E54.09) | Website: RobotTestMethods.nist.gov inds (4) omni-directional bucket stands, a Platform, and a measuring taps e parts for each stand include: VERTICALS IN ELEVATE [1] 4x4x6in center post [4] 2x4x12in legs with 45deg taper both ends 2-gallon white buckets (8in diameter) [5] 10] 3in screws to affix the legs -2 per leg at top 1in screws to affix the buckets [5] Slotted leg extensions [4] [8] <sup>1</sup>/<sub>4</sub>-20 x 2in hanger bolts and wing nuts for the leg extensions to slide on and tighten [15] 8in diameter weath Standard Test N Teams concu INI Internationa (see website to dow Response Rol safe distance 4]Basic Viar designated a Montgornery County Poli [4] Big letters A-B-ALIGN WITH BUGKETS GAN Safety | ( Each pilot flie objectives for Align with each bucket lor Align with each bu necessary to DOJ/DHS Nation inscribed ring and single alignment image (N green ring inside the buck C gap directions as Scenarios res **OPEN TEST LANE** Proctor, and \ continuous green ring or 1 poi video or zoomed in scoring for accur yourself, although

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