Educator’s Workshop: Testing & Refining STEAM Learning Activities for Recreational Drones

Abstract/Agenda:
Fifteen educators selected through our application process will test and refine a range of activity ideas. Participants will make plans for facilitating STEAM (Science, Technology, Engineering, Art and Math) investigations using recreational drones in clubs, classrooms, and / or science fairs. Participants will also learn about ESIP projects and initiatives that provide learners with opportunities to apply skills in acquiring and using data.

AGENDA:
8:30 Welcome, introductions, ESIP overview & distribute assembled drones to participants
9:00 Intros to safety and documentation (B4UFLY app & pre-flight checklist)
9:15 Drone Aerodynamics 1: Goal: controlled flight and simple maneuvers.
   New pilots will be paired with experienced pilots.
10:00 ESIP Education sampler sessions (http://commons.esipfed.org/node/9250) (Three 10-minute talks with connections to drones)
10:30 Meeting-wide Break
11:00 Three more 10 minute talks (http://commons.esipfed.org/node/9250) (ESIP activities with connections to drones)
11:30 Drone Aerodynamics 2: Running simple investigations
   Model best practices for safety and documentation (always).
   UAV payloads and / or other activities for novices; Image gathering challenge for experienced folks.
   Share all suggested activity sheets and invite exploration, input, and feedback.
12:30 Lunch
1:30 Drone Aerodynamics 3: off-the-shelf and miniature DIY sensors
   Take your skills to the next level.
   Explore and imagine new activities.
3:00 Discuss the most effective way to help educators remain motivated and engaged.
   Assign responsibilities for testing activities.
   Develop consensus on best practices for activity instructions.
   Outline timeline and milestones for e-book.
4:40 Evaluations & wrap-up

Notes:
This is an all day workshop advertised to take place on Tuesday, July 19. We request a large room with around 20 chairs and a few tables, leaving us lots of room to fly and crash drones.

Attachments/Presentations:

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