



AirSpew:  
Modular Information  
Dissemination System

# OpenWERX Challenge: Guiding Principles

- Open
  - Use Open Source/Open Hardware/Creative Commons building blocks
  - All new development (hardware, electronics, software) must be publicly and freely available under an appropriate Open Source license before judging begins. We recommend using a Github repository for all design and code artifacts.
- Collaborative
  - Build a team
  - Engage the broader open development ecosystem
  - Participate in the #openwerx room in our Slack: <https://sofwerx.slack.com>

# OpenWERX Challenge: Guiding Parameters

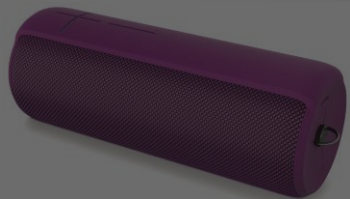
- Register To Complete
  - OpenWERX Event Page: <http://www.sofwerx.org/openwerx-airspew/>
  - NLT 30 June 2017
- Demonstrate Work
  - Video demonstration of capability uploaded to YouTube by 21 August 2017
  - Functional Prototypes arrive at SOFWERX by 21 August 2017. Our address is 1320 E 9<sup>th</sup> Ave, Suite 100, Tampa, FL 33605
- Q&A/Judging/Awards
  - 7 September 2017
  - Cash prizes: \$10k (1<sup>st</sup> Place), \$5k (2<sup>nd</sup> Place), \$3k (3<sup>rd</sup> Place)
  - YouTube Livestream URL will be posted on the Event Page the day of the event
  - Webinar information for remote participants will be provided by email



OPENWERX

# OpenWERX Challenge:

Build a drone-mountable, modular, info dissemination system





## Specifics:

- Goal 1: Physical Design
  - Universal mount compatible with DJI 4 (Not interfere with DJI functionality)
  - All modules must be able to be activated using existing DJI software (e.g., overload the LED capability) via the universal mount
  - Total weight (mount + module) must be less than 1.75 lbs
- Goal 2: Speaker
  - Must be able to broadcast a pre-recorded message once activated
  - Greatest volume to weight ratio possible
- Goal 3: Software Defined Radio
  - Must be able to broadcast a pre-recorded FM signal at 24dBm/0.25 Watts
  - Must include a small compute node capable of executing GNURadio scripts
- Goal 4: Pamphlet Dropper
  - Must be able to drop up to 1lb of leaflets, one at a time
  - Leaflets are 8.5" x 5.5"

## References:

- Gannet Bait Release: <http://dronefishing.com>
- Drone Leaflet Drop Over Syria:  
<https://now.mmedia.me/lb/en/NewsReports/566810-rebels-drop-leaflets-over-syrian-capital-from-drones>

# Questions?

- Event: [keri.cline@sofwerx.org](mailto:keri.cline@sofwerx.org)
- Challenge (technical): [cameron.hunt@sofwerx.org](mailto:cameron.hunt@sofwerx.org)