



THE UNIVERSITY OF ARIZONA

Research, Discovery
& Innovation

UAVs at UofA

Stephen Fleming
Vice President

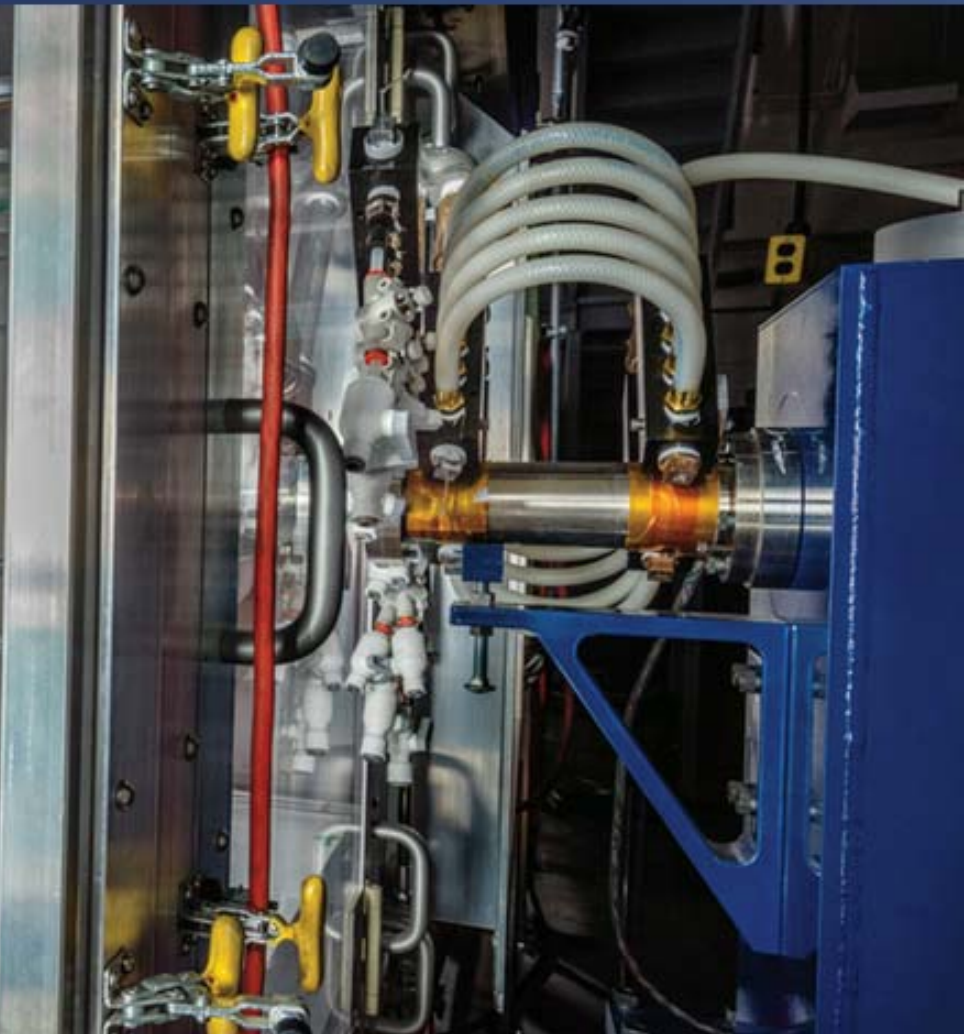
 @stephenfleming

Undergrad Student Engagement





Subsonic Wind Tunnel



Micro Air Vehicles Laboratory

2,200 sq ft facility available for student use. The focus of the laboratory is designing UAVs and on unsteady aerodynamics of flexible structures relevant to vehicles with fixed, flapping, or rotary wings

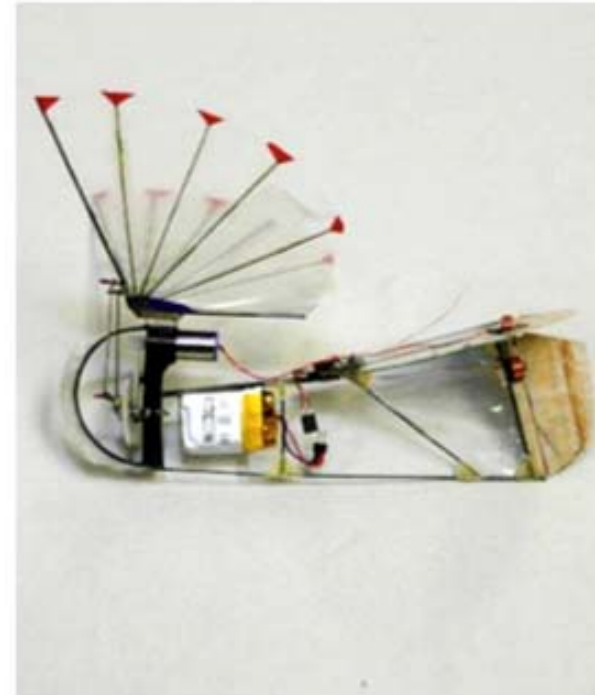
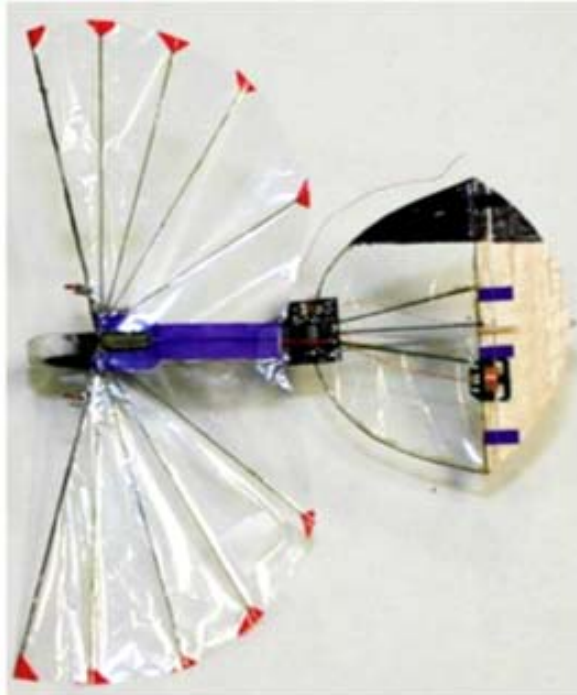




Flapping-Wing UAV

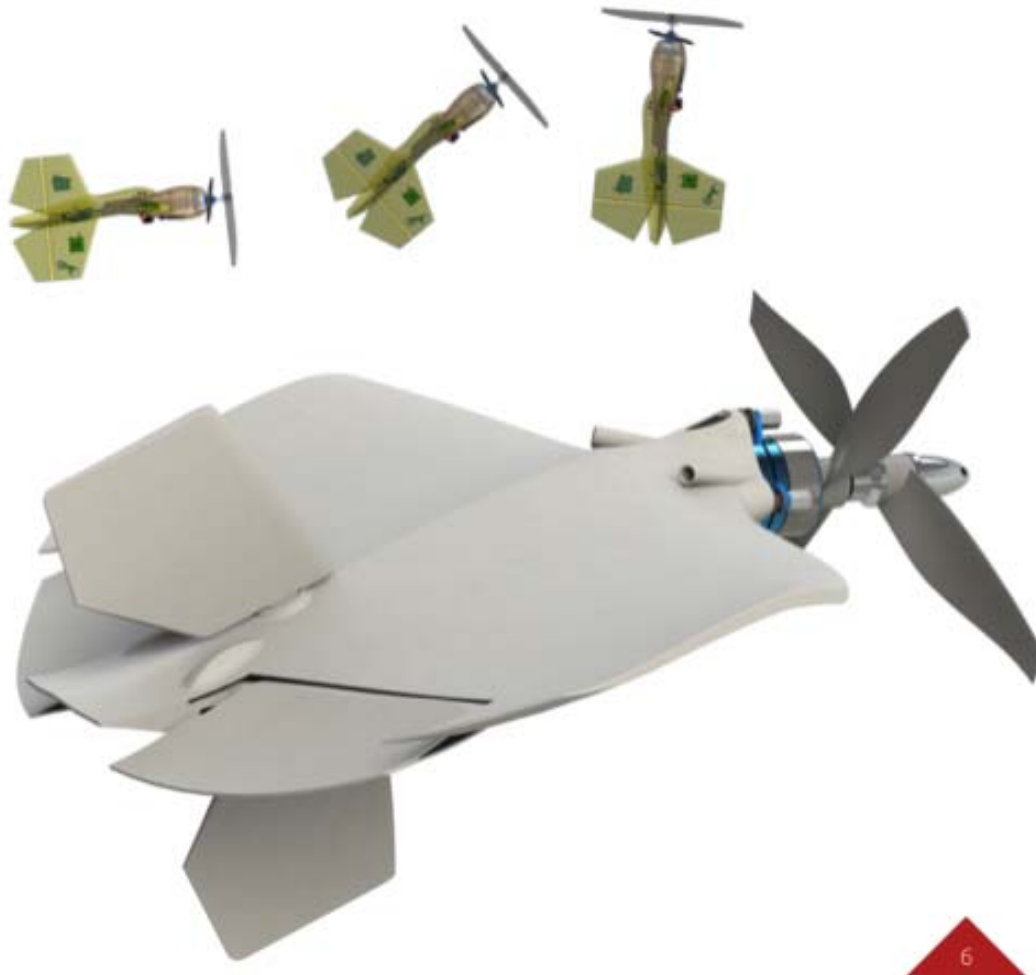
Total mass: 0.29 ounces

5 inches





Vertical Takeoff and Landing MAVs



Wingspan 6" to 12"

Speed up to 35 MPH,
20 min flight time

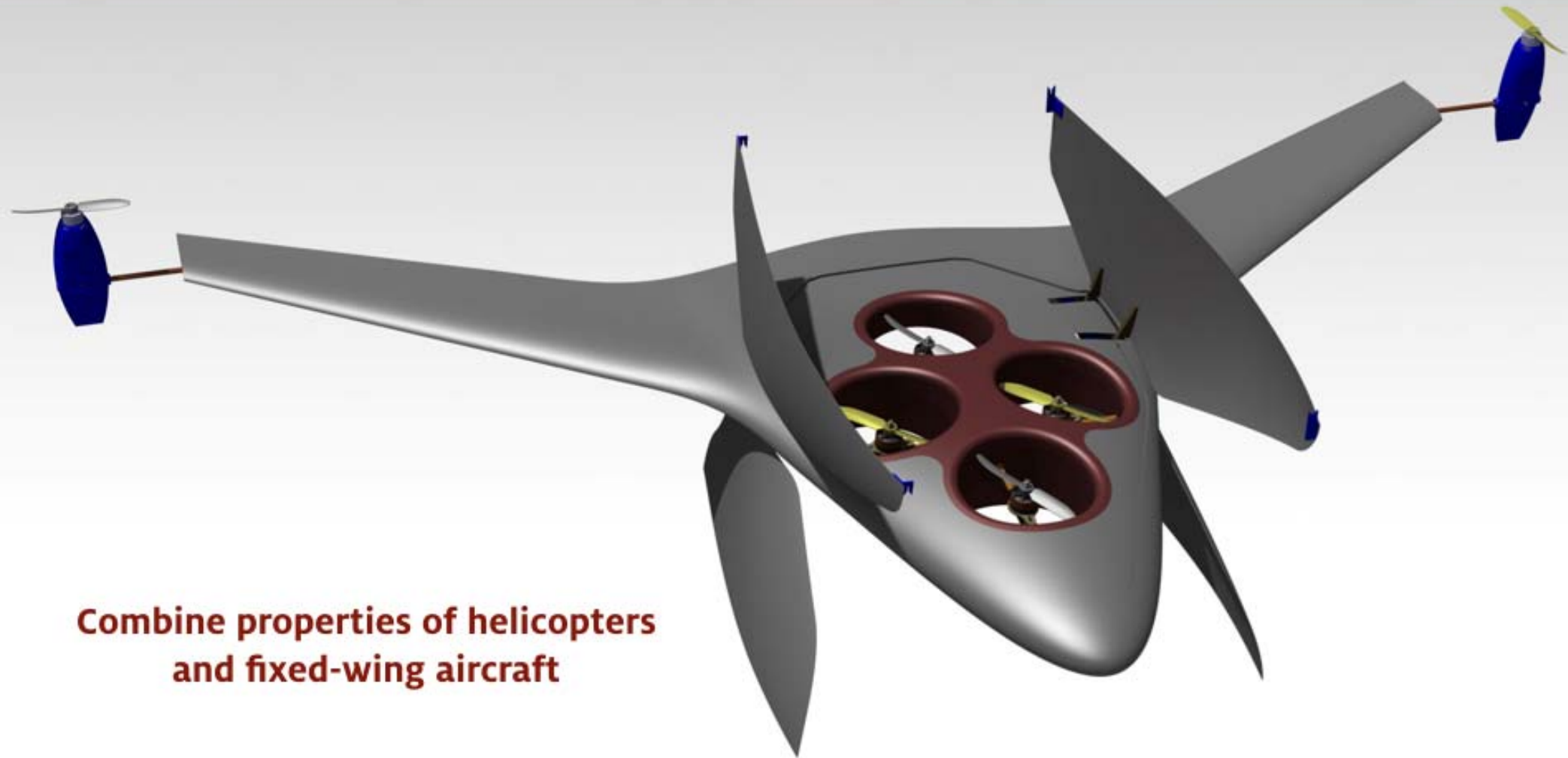
Flying indoor and
outdoor

3D printed airframe

Autopilot, GPS,
multiple sensors



Long-Range VTOL



**Combine properties of helicopters
and fixed-wing aircraft**



VTOL UAV Design and Fabrication





VTOL UAV Design and Fabrication



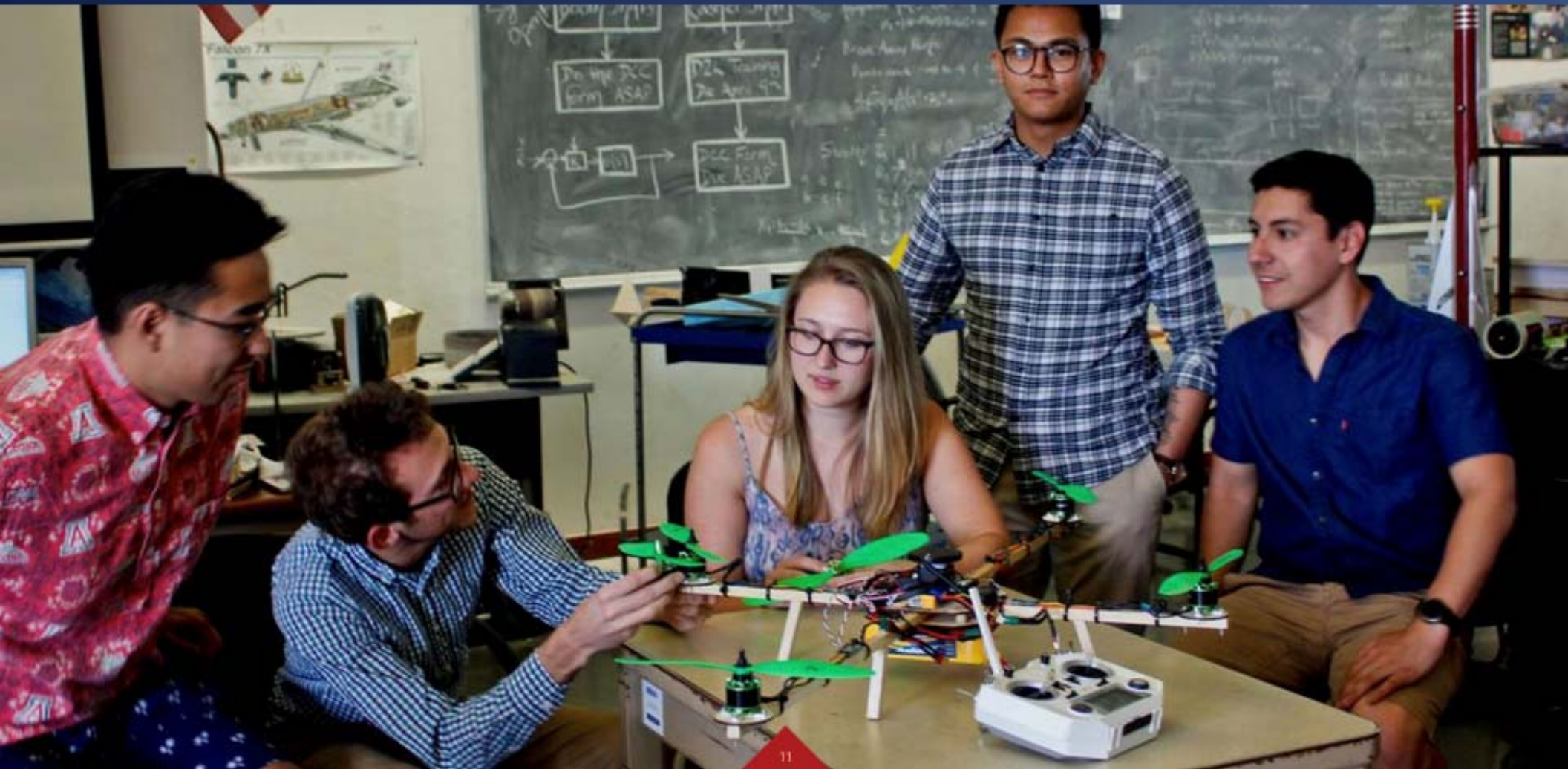


UAVs Across Campus





Search and Rescue





Date Palm Pollination





Date Palm Pollination



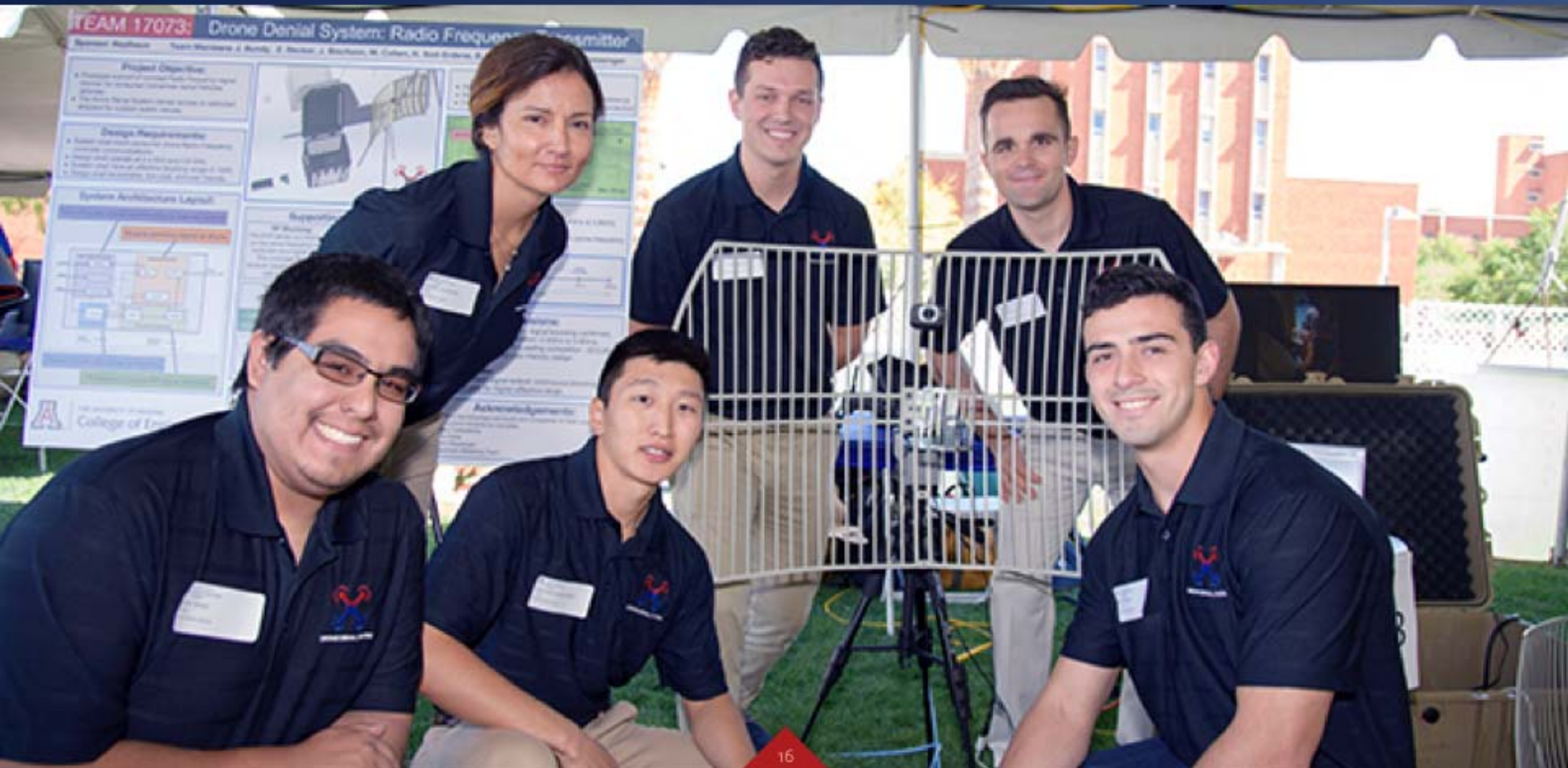
Autonomous Border Surveillance







Active Area Drone Denial





McGuire Entrepreneurship MBA Program





Biosphere 2: Drone Racing





School of Journalism: Border Stories





Latitude Technologies *(now L3 Harris)*

HQ-60 hybrid quadrotor





Latitude Technologies *(now L3 Harris)*



NASA Advanced Guided Dropsonde



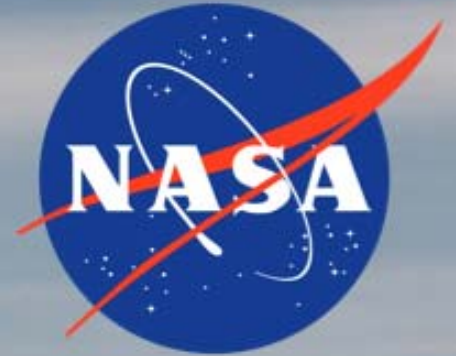
AUV Flight Services, Tucson

**Simulated 97-mile part
delivery in regulated airspace**





GUSTO Stratospheric Observatory





World View



STRATOLLITE IN THE SKY
WORLDVIEW'S 2ND LAUNCH

5:05 91°
KGUN 9
ON YOUR SIDE
abc

UR SIDE // ON YOUR SIDE // ON YOUR SIDE // ON YOUR SIDE // ON 24 UR SIDE // ON YOUR SIDE // ON YOUR SIDE // ON YOUR SIDE // ON



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Thank You!

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