Mission Statement:
To create a solar airplane that proves the viability of solar power as an energy source, as well as make a plane capable of providing assistance in humanitarian aid efforts.

Objectives:
1. Must be functional
2. Must be powered by solar panels and batteries
3. Must have a flight time extended by 30 minutes beyond the battery life
4. Electronics and Propulsion equipment must be integrated and easily accessible throughout the aircraft
5. Must be able to sustain landing loads by landing on a grass patch without a landing gear
6. Must be able to hand launch
7. Must fit in a standard truck bed (6.5’ x 4.2’)
8. GPS and camera must be integrated with acceptable video quality
9. In-flight data must be given via remote terminal

Fall Schedule:
Weeks 1-2: 1st meets, introduction to team, initial training, cleaning lab + inventory
Weeks 3-8: manufacture, and analyze RC planes
Weeks 4-6: UROP Proposal
Weeks 6-10: begin designing ‘22-23 project plane
Week 10: fly glider RC plane
Weeks 7-present: UCI-OSU Collab

'22 Plane Design Parameters

<table>
<thead>
<tr>
<th>Design Parameter</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Span</td>
<td>5 ft</td>
</tr>
<tr>
<td>Aspect Ratio</td>
<td>10</td>
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<tr>
<td>Fuselage Length</td>
<td>3 ft 9 in</td>
</tr>
<tr>
<td>Weight</td>
<td>&lt; 5 lbs</td>
</tr>
</tbody>
</table>

Wings and Fuselage Trusses of Value Planes SB98

XFOIL CFD Analysis of 4 Potential Airfoil Shapes

Fully Manufactured and Flight Ready UZI Glider

Final Full Plane CAD Assembly for Fall ‘22