**Human Powered Airplane**

**Background**
- No HPA built in U.S. in 2 decades
- Restarted at UCI after 20 year hiatus
- Airplane powered by one person via pedal assembly
- Wings must be light and large for sufficient lift
- Plane must be structurally sound for safety

**Objective**
- Build Human Powered Airplane
- Test fly the aircraft
- Document building processes, benchmark for future HPA’s

**Significance**
- No pollution, environmentally friendly
- Will validate/invalidate wing level fuselage designs

**Team Members**
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**Advisors:** Professor Bob Liebeck, Professor Ken Mease, Jacqueline Thomas, Joe King, Colin Sledge

**Cantilever Wing**
No external supports/wire bracing, less drag vs. other HPA’s

**Wing Level Fuselage**
Drive train directly connected to propeller

**H-Tail**
Landing Clearance
Less tail boom torsion

**Specifications:**
- Wing Span: 108 ft.
- Aspect Ratio: 29.75
- Taper Ratio: 0.6 (outward 21 ft.)
- Wing Chord: 4 ft.
- Horizontal Span: 10 ft.
- Vertical Span: 5 ft.
- Vertical Chord: 2 ft.
- Propeller Diameter: 12 ft.
- Propeller Speed: 200 rpm
- Projected Total Flight Weight: 300 lbs.
- Projected Flight Speed: 17 mph

**Timeline**

- **Fall**
  - Finish Wing Skin Design
  - 4 Propeller Blades Produced
- **Winter**
  - Wing Skin Attached
  - Fuselage Redesigned
- **Spring**
  - Wings Fully Assembled
  - Drive Train Finalized
  - Fuselage Assembled
- **Summer**
  - Propeller Hub Assembly Finished
  - Controls Calibrated
  - Plane Assembled
  - Test Flight

**Budget 2014-2015**
- Testing and logistics: $750.00
- Fuselage: $3,600.00
- Tail: $1,600.00
- Wings: $1,600.00
- Drive Train: $1,600.00
- Total: $16,050

**Contact Information**

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