

Project I Description

Project Name: Solar Aircraft
Team Size: 2 MEE Students
1 team

Project Overview	
<p>Development of unmanned solar powered aircraft has attracted attention of several agencies over the past decade because of their promising potential in military and civilian applications. In Lebanon such aircraft could be used as communication links or sensors to monitor remote areas.</p> <p>The objective of this current project is to optimize the build and flown airplane so that it is able to fly continuously for several hours. Tandem vs conventional design will be considered to arrive at an optimum number of solar cells per unit area. Given available material, a structural study will be performed to minimize weight. Appropriate amount of batteries will be optimized along with other needed electronic components</p>	
Project Areas and Majors	
Aerodynamics (1 MEE Student)	Structural Mechanics /Instrumentations (1 MEE Student)
Project Deliverables	
<ul style="list-style-type: none"> • Optimal Aerodynamic Design • Optimal Structural Design • Maximum Embedment of Solar Cells • Optimum amount of batteries needed • Testing of prototype to achieve more than 2 hours of continuous flight 	