**Request Form for Biomechanical Harvester for Senior Design Project  
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* **Project Title:**

**Biomechanical Harvester for Health Monitoring Systems (we suggest a team of 2 ME, and at least 1 EE students)**

* **Is the project CONFIDENTIAL? Yes / No**
* **Pl. identify critical Design Component(s)?**

**Ensure the necessary electrical power to health monitoring systems under the constraints of harvester size, cost and efficiency.**

* **Expertize needed to address the design component (pl. circle ALL that apply)**

**Statics, Dynamics, Thermo, Fluids, Controls, K&D, Heat Transfer, Materials, FEA, …..**

**Pl. add anything else you feel needed. Thanks.**

**Statics, Dynamics, Mechanical Engineering Analysis II, Biomechanics, Electrical Circuits**

* **Special software expertise needed?**

**Matlab, LabView, Algor, Solidworks, …..**

**Pl. specify if there’s anything else? Thanks.**

**Matlab, Labview, Biomechanics software**

* **Is Machine shop expertize needed? Yes / No**
* **Pl. mention MINIMUM Measurable Outcome(s):**

**A functional biomechanical harvester with an improved efficiency.**

* **Is there any Key Performance Indicator (KPI) you plan to use to measure progress towards Measurable Outcome?**

**The KPIs used in this senior design project are 1) improved design in terms of efficiency, 2) levels of modeling in order to simulate the behavior of the harvester, and 3) design solutions.**

**If you’ve a write-up you want to add, pl. do so either as an attachment or type/write below & over. Thanks.**

**The technical advisors suggest a team of 2 ME students and at least 1 EE student. This is an exciting mechanical-electrical engineering design challenge. The senior design team will improve on the existing design of a biomechanical harvester which is designed for low power health monitoring systems. An analysis on the components and functionality is to be conducted with the scope of improving harvester’s efficiency. The constraints of the design are given by harvester’s size, cost, and power to be produced.**