

Project Team for MEMS 1029

Pitt's Spring 22 MEMS 1029: Mechanical Design II

Team Member

Ziang Cao: ZIC25@pitt.edu

Mingze Cai: mzc179@pitt.edu

Puhang Cai: puc4@pitt.edu

Yuming Gu: yug52@pitt.edu

Yoosup Shin: yos34@pitt.edu

Pre-思路

模仿手机厂商

呈现的时候：

- 定义requirement（尺寸， 质量） --- 但这部分其实是设计完了再更新
- 直接呈现完整产品的动画 【Overview】
 - 用关键词highlight模型的特征：
 - Energy storage must be done using springs
 - Input power must come from a human-powered hand-crank.
 - Device must have a gearbox and gear train
 - 我们找一下手摇发电机的大小？然后对比并展现我们的发电机size很小。
 -
- 再根据要求 -- 逐一验证可行性 【我们的产品牛逼】
 - 从储能的角度 先分析弹簧
 - Device must be capable of storing 10 Watt-hours of energy.
 - Input power must come from a human-powered hand-crank. The design of the hand-crack is up to you, e.g. the size, the shape.
 -
- 产品的优越性：比传统的spring设计的有哪些好处 【对比友商】
- 价格分析

Why don't they use springs as an energy source for cell phones?

check here: [link](#)