

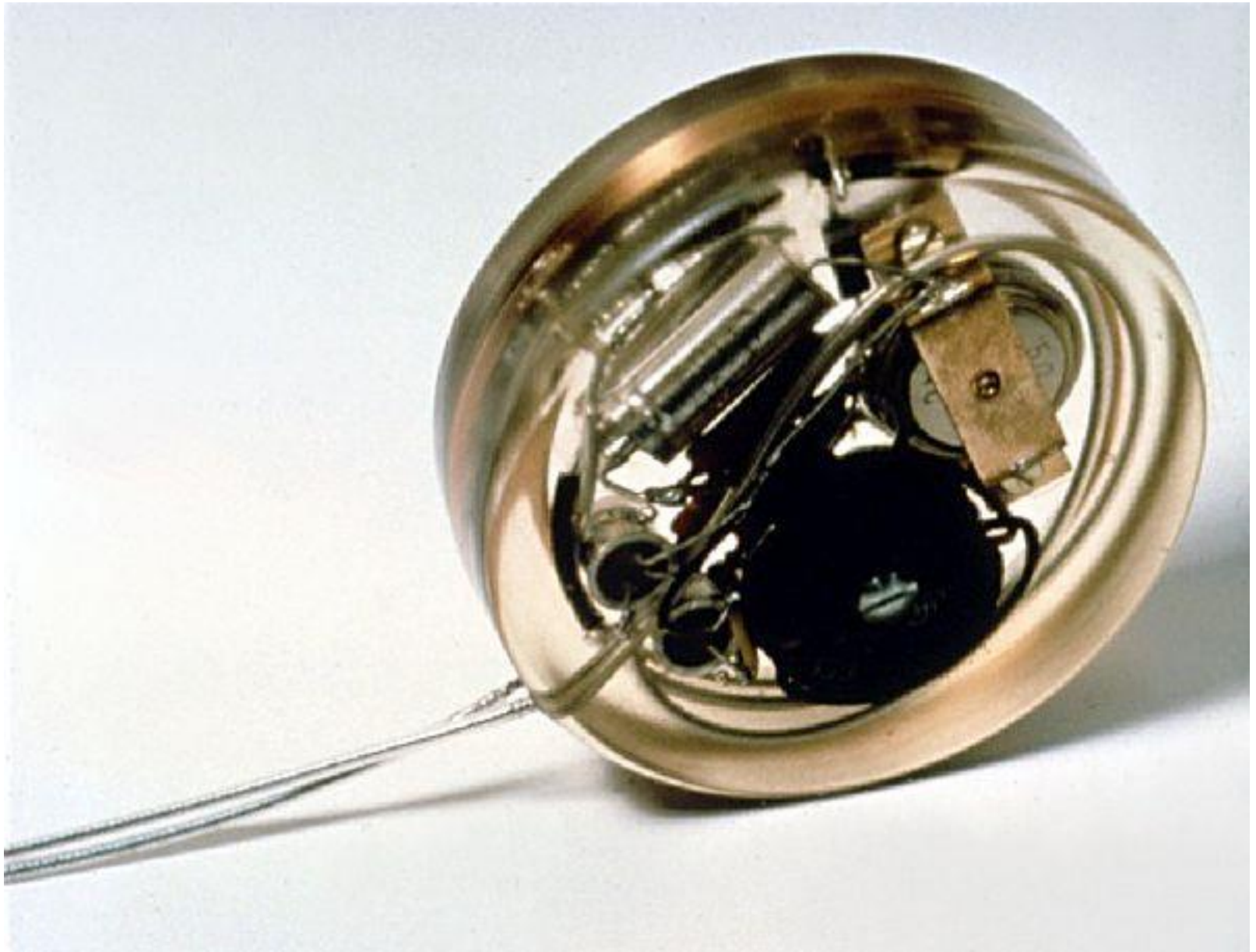
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Off Grid Electricity Production for Pacemakers

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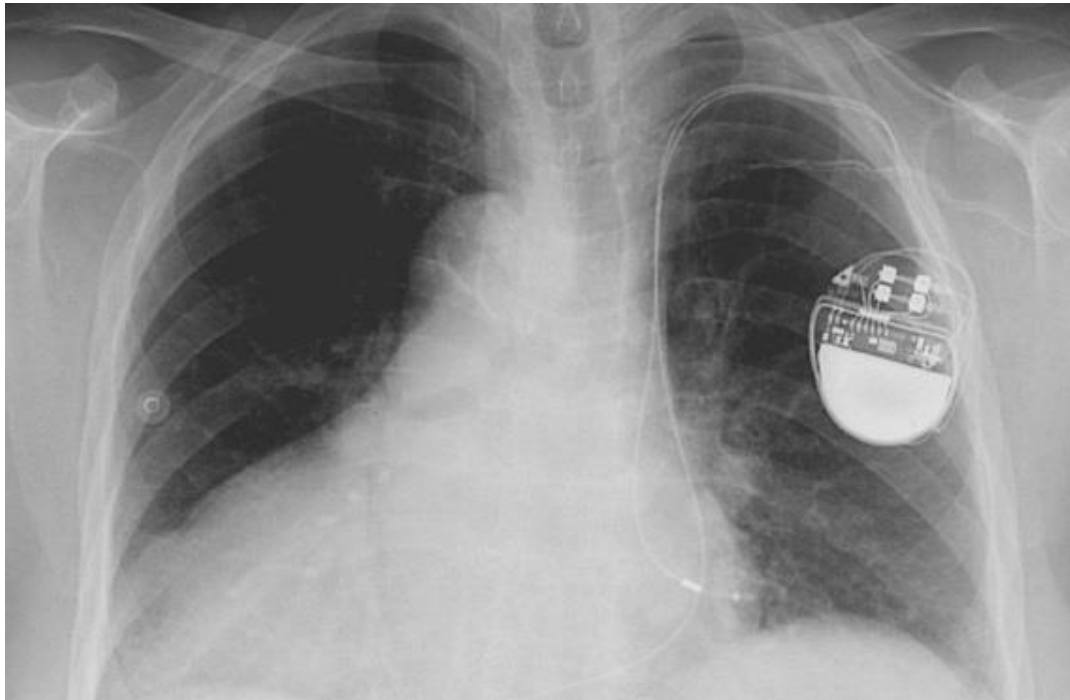
Who Needs Pacemakers?

- Over **10,000,000** people have pacemakers
- Every year, there are additional **1,000,000** new implants
- The ages of the patients vary from over 60 for most patients to **under 5** in extreme cases.



Current Situation

- Battery replacement is needed every 7 years on average
 - Multiple surgeries

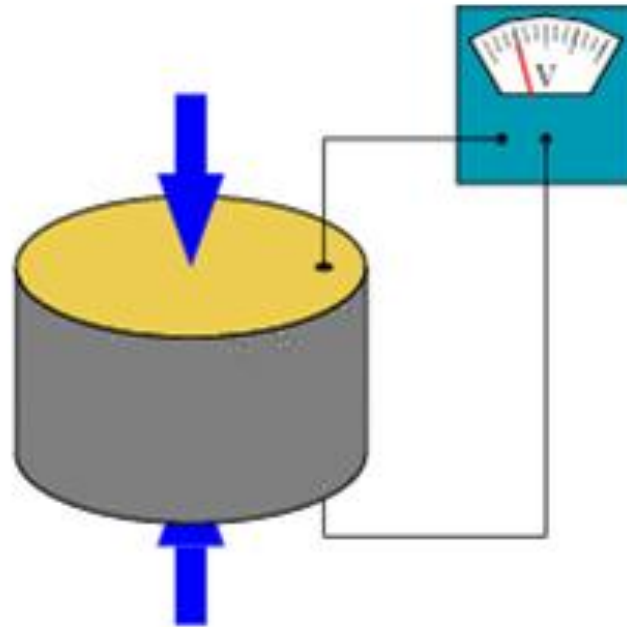




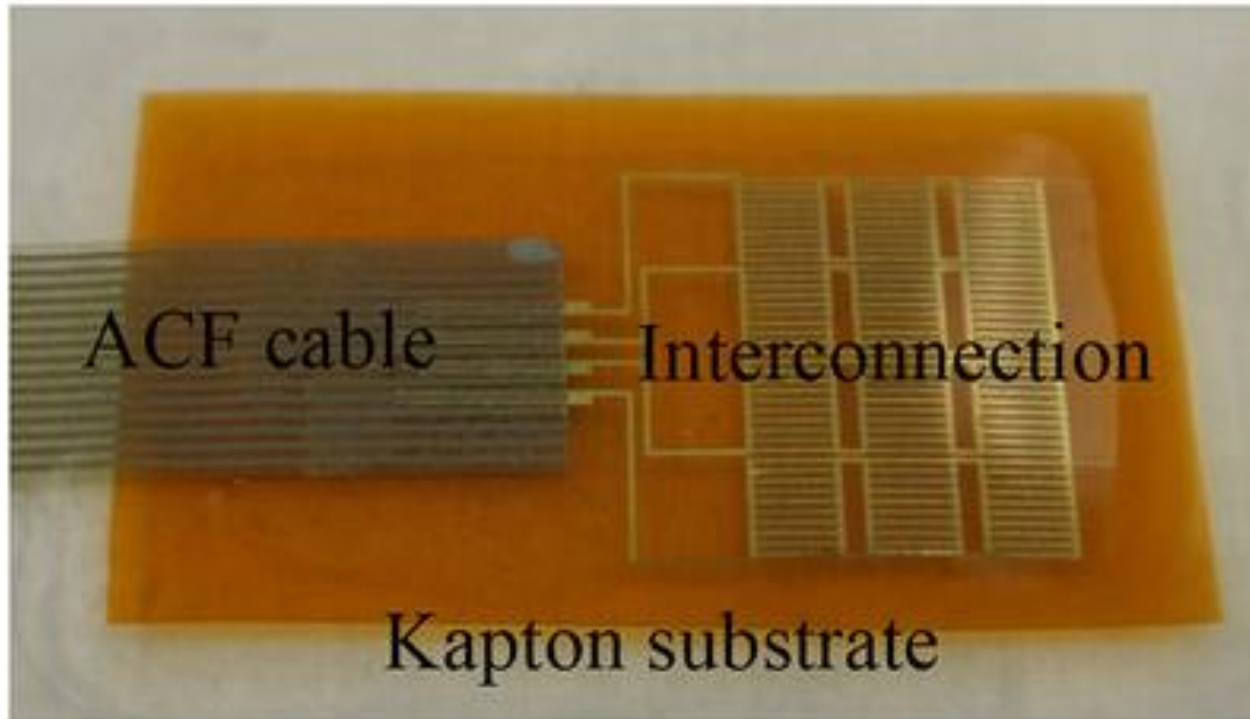
Our Idea

- Off grid
 - Long term solution
 - Feasible in the near future
- Not as expensive as you might think

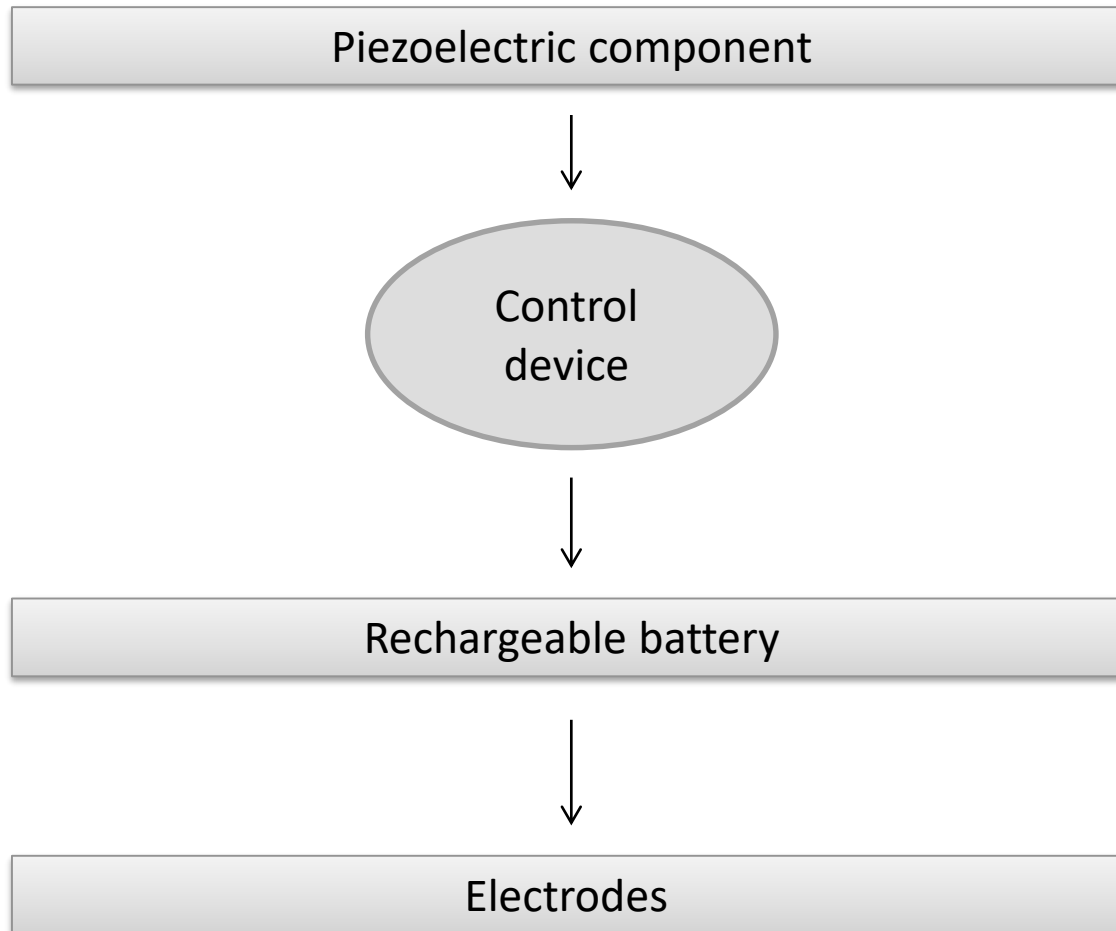
Piezoelectric Component



Piezoelectric Component



System's Design



Advantages

Reduces surgeries

Permanent solution

Reduces expenses

Disadvantages

Longer surgery

No mass production currently

Larger investment

Comparing systems

Mass production

Less surgeries





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