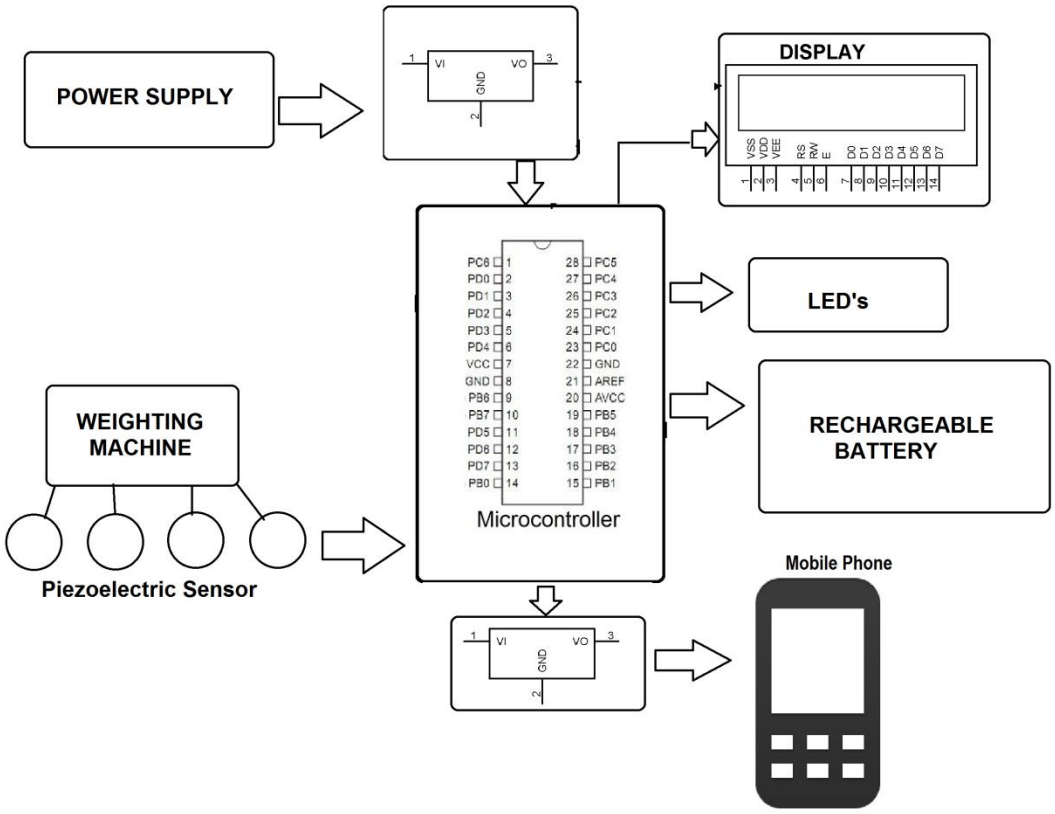
Advanced Footstep Power Generation System

Here we propose an advanced footstep power generator system that uses peizo sensors to generate power from human footsteps.
The system allows for a platform for placing footsteps. The peizo sensors are mounted below the platform to generate voltage from footsteps.
The sensors are placed in such an arrangement so as to generate maximum output voltage. This is then provided to our monitoring circuitry.
The circuit is a microcontroller based monitoring circuit that allows user to monitor the voltage and charges a connected battery by it.
It also displays the charge generated and displays on an LCD display. Also it consists of a USB mobile phone charging point where user may connect cables to charge mobile phone from the battery charge.
Thus we charge a battery using power from user footsteps, display it on lcd using microcontroller circuit and allow for mobile charging through the setup.

Block Diagram:



Hardware Specifications

- Atmega 328 Microcontroller
- Peizo Electric Sensors
- Power supply
- LCD display
- LED’s
- Footstep Body
- Mobile Charger
- Resistors
- Capacitors
- Diodes

Software Specifications

- Arduino Compiler
- MC Programming Language: C

Reference

- http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7503403&queryText=peizo%20power&newsearch=true