Foot step power generation using piezo electric sensor

Man has needed and used energy at an increasing rate for his sustenance and wellbeing ever since he came on the earth a few million years ago. Primitive man required energy primarily in the form of food. He derived this by eating plants or animals, which he hunted. Subsequently he discovered fire and his energy needs increased as he started to make use of wood and other bio mass to supply the energy needs for cooking as well as for keeping himself warm.

With the passage of time, man started to cultivate land for agriculture. He added a new dimension to the use of energy by domesticating and training animals to work for him. With further demand for energy, man began to use the wind for sailing ships and for driving windmills, and the force of falling water to turn water for sailing ships and for driving windmills, and the force of falling water to turn water wheels. Till this time, it would not be wrong to say that the sun was supplying all the energy needs of man either directly or indirectly and that man was using only renewable sources of energy.

In this project we are generating electrical power as non-conventional method by simply walking or running on the foot step. Non-conventional energy system is very essential at this time to our nation. **Non-conventional energy using foot step is converting force energy into the electrical energy.**

The project aims at generating of voltage from footsteps. In this project the conversion of the force energy in to electrical energy. The control mechanism carries the piezoelectric sensor. The generated voltage is stored into the rechargeable battery through charging circuit. Battery power is used to charge the mobiles.

The major building blocks of this project are:

1. Piezo sensors.
2. Charging circuit.
3. Rechargeable battery.
4. LM2596 voltage regulator.
5. Mobile USB.
6. Multiple mobile cable.

Block Diagram:

Block diagram of the project