Young Innovators Challenge
Pressure Plated Sidewalks

By:
Nate Lieb
David Redmond
Ryan Perigard
Maitham Alkhalifah
Mission Statement

To harness energy created by everyday activities while also promoting human welfare.
Customer Need’s

- **Citizens:**
  - Incentives to choose walking over other modes of transportation.
  - Convenient placement of the pressure plates.

- **Sponsors:**
  - Advertisement
  - To spread knowledge that their company is eco-friendly and promotes a healthy life style.
Statistics

- There are 250,000 street lamps in New York City.
- It takes 90 watts to power a street light for an hour.
- If the energy created by all 8.5 million people walking in New York City is harvested, then each person only needs to walk 5 steps to power every street light for 12 hours.
Overview of Pressure Plates

- Hexagonal spring-loaded pressure plates that will replace sidewalks in highly populated areas.

- We will harness the kinetic energy from people walking and convert it to electrical energy to power various city functions.

- When stepped on, the springs will compress and piezoelectricity will be harnessed.
Model
Finances

- The development and installation will be the most expensive components.

- Possible ways to gain funds:
  - Sponsorship by both fitness and eco-friendly companies
  - Advertisement on top of the pressure-plates
  - Government subsidies
  - Purchases of the SpringStep App ($0.99)
Where to Install?

Places with high amounts of human traffic to maximize obtained energy:
- outside sport stadiums
- entrance and exit to subways
- bus terminals
- malls and various stores
- metropolitan universities
“SpringStep”

- A chip that you can put in your shoe to track how far you have walked and how many steps you have taken.

- This chip relays information to the “SpringStep” app on your smartphone.

- 10 steps earns 1 point.

- Certain amount of points earns you different rewards that eco-friendly companies will sponsor.