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Power of a Nation

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The Problem: There are currently 3 factors, which are influencing the way Americans live their lives on a daily basis. 1) Obesity and health: America is the number one obese nation in the world with approximately third of all Americans being over-weight. 2) Alternative energy and going green: "In the U.S., state governments have passed stringent legislation requiring that an ever-growing percentage of electric generation come from renewable means. In Washington, D.C., the Obama administration has major programs in place to boost federal funding of renewable energy and conservation measures" (Plunket Research, Ltd.) 3) Money saving: Due to the recent recession, Americans are constantly seeking to increase their savings by cutting electricity and other resource costs.

Our solution: Design an energy efficient "athletic device", which creates energy, saves money and helps the environment. The device will be a multi-purpose workout machine (multi-purpose gym), which harnesses the energy from the constant motion of our machine during a workout and converts this energy into a reusable form of energy. This machine will ultimately improve and empower our nation's health, energy and finances, thus giving birth to our invention, "*Power of a Nation.*"

The main issue behind working out is motivation. The *Power of a Nation* provides that motivation to users in the form of creating new energy and saving money. By fabricating a link between energy saving and physical improvement users are provided with the incentive to save money, while simultaneously improving their overall fitness and health.

Furthermore, we are changing the way people think and feel about "alternative energy." The *Power of a Nation* provides a unique and fun opportunity to educate and excite the public

regarding issues of the environment. By displaying that “going green” is not just all about recycling your trash, we are opening the eyes of Americans and proving that there are numerous ways that they too can help save the environment.

Lastly, we are providing a unique way for people to save money and by connecting the *Power of a Nation* to a battery source, electrical device or even their electric vehicle and powering it while they workout. The *Power of a Nation* will allow for Americans to refuel their electronic devices for free, while simultaneously improving their overall fitness and health.

Our timeline will be based around the construction of our machine. We predict that the construction of the workout frame itself will take approximately 2 months to build. Similarly, designing the electrical components that will help convert the movements into reusable energy will take approximately 2 months to build.

We foresee the *Power of a Nation* within every home, school and athletic facility in the United States and eventually the globe. We are confident that with this invention we can significantly reduce obesity and health issues in America by creating the motivational factors of saving money and helping the environment. All citizens will have a chance to literally do their part and help the environment. A positive side effect will be the educational-awareness movement of saving the environment that will come with the symbolism of our invention; Americans will be helping “Power (the) Nation.”

Finally, with enough usage, users will be able to lower their energy payments Additionally, with money saved we are giving back Americans time that they would have had to expend at work to make money. If a consumer makes $100 in reusable energy, this translates

into approximately 10 hours worth of time that would have been at work that now belong to our consumers. With this newfound time and money, Americans can spend time with family, add to their savings account, or even create an invention of their own. Started by college students, the *Power of a Nation* will challenge and inspire generations of young people to pursue their own dreams and find a way to change the world with their own passions.

Equipment	Cost
Steel Cables	$100
Pulleys	$50
Metal Rods	$50
Adjustable Bench	$100
1 Main steel frame	$100
Handles	$40
AC Electric Motor	$100
Electrical Cable	$100
TOTAL	$640

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