

Gravity Weight based Free Energy Generation

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Abstract: Gravity power generation basically obtaining electrical energy from the use of gravitational force that is using motion of object which moves under the action of gravity force to generate energy. This mechanical document consist of one such mechanism which uses gravity as a source to make power by 1st converting it into mechanical work and then convert it into generate required energy using generator.

Keywords: Generator, shaft, electrical connection, electrical filter, wire, mass, wheel, power device)

1. Introduction

A lack of access to reliable electricity is, in part, what defines and differentiates developed countries from developing countries. This shortage is the main problem our senior design team aims to address. A number of solution have been proposed for way to locally capture renewable energy and convert it into electricity. This solution generally relays on solar hydroelectric, or wind power. Though all of this source renewable, none is as reliable or readily available as gravity. Every location on earth has equal access to gravity, day or night, rain or shine. Gravity is one of the few constants all people have access to regardless of their circumstances. The lack of reliable electricity affects the performance of many medical clinics in ender develop areas. One negative effect of unreliable electricity is that many small devices cannot be powered without a ready supply of batteries. Batteries may not always be available, should be disposed of specific way to reduced environment effect, and do not hold and optimal charging certain, worm and humid climate. These models were chosen because they are critical to our design process. If the device and filling mass cannot be supported by our test frame, there can be no testing. If the side plant walls cannot support the weight then the device would rip itself a part this are also to most likely points to fail in our projects

2. Overview

It is in this chapter that team gravity charger identifies specific customers and their personal needs to be met. After describing the needs of our customers the overview of the system at large and how it may be broken into subsystem follows. After this breakdown the requirement for the system to meet the required need are laid out along with a description of the expected general user interface. Having identified

constraints of the project a short portion thereafter explains a number of trade – off which will be balanced.

3. Block diagram

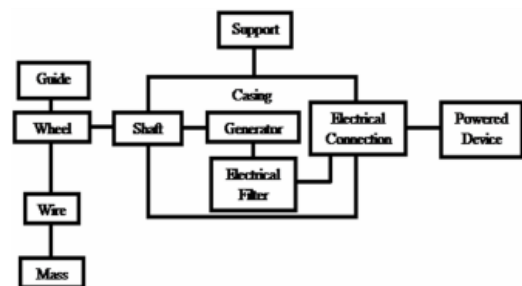


Fig. 1. Block diagram

4. Assembly

During assembly it is important to keep all parts firmly affixed a solid surface. Proper supports for all components must be present at all times to avoid any precarious positions. All process must also be completed with the proper tools for the job to maximize safety.

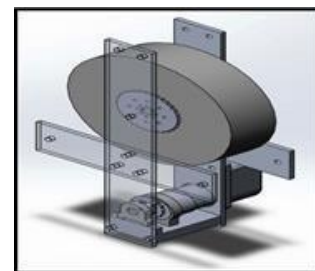


Fig. 2. Assembly

5. Working

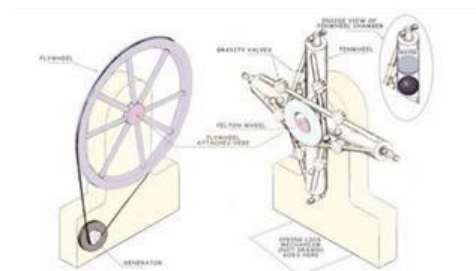


Fig. 3. Working

The generator used is an energy generator with weight ball descending down the bottom cylinder, it forces the liquid out of the cylinder, through the Pelton wheel and goes into the upper cylinder. When ball comes extreme bottom of cylinder, the weight of liquid and its mechanism get concentrated in upper right-side cylinder, thus overbalancing the mechanism and rotates to the right when unlock. While descending down ball also presses down on the unlocking mechanism of the gravitational engine, thus compressed the spring mechanism within ball saddle. Has the cylinder rotate to the left after being emptied, the leaf spring pushes the weight ball away from saddle towards the access where magnetic action can hold the whole in place this action remove only resistance to 90-degree rotation, insure generator operation. This pushes along with the over balance, cause the whole Mechanism to rotate 90 degrees, thus rotating the right side cylinder become lower cylinder that the opposite to each other are connected with each other by an air venting pipe so that has the liquid enters the top cylinder, the air it is displacing goes out the pipe and into the bottom cylinder being assisted by the vacuum being created in the bottom cylinder by its ball descending. This free energy generator can function because the laws of entropy prevent only singular mechanism from performing perpetually because they need to use the energy get produce to recycle themselves. Being a compound mechanism, this generator does not. The energy generated, 'gravity rotates it'.

6. Testing and operation

The generator has a moving part as well as release of energy. The risk of pinch point from moving point was illuminated from machine enclose the device. The machine should not run if there is too much load present so as to keep the counter weight mass from free felling at a potentially dangerous speed. 10 years is a minimum age for operation. There is very real potential to deliver a painful and potentially damaging shock to a person. The generator could also produce large amount of heat and pose a fire hazard should something go wrong. To reduce fire hazard no easily flammable part will be connect to the generator and proper ventilation will be available for cooling. Even when functioning properly, not properly enclosed the moving part of device create many pinch point. Since our final device relies on a mass with a height displacement, it is important to make sure the mass is secure will not land on someone when falling.

7. Design process

The gravity charger design has undergone many alterations throughout in design process. With our focus shifted, we began investigating ways to maximize power output by characterizing the energy production capability of a dc motor. If became clear that power generation is linked to torque, rotational speed, and fall time. Knowing this variable to be crucial to our project, the we began looking for ways to increase all three. with regards to torque, to the diameter of motor shaft and amount of mass can

be increased without causing the device to fail. The wheel diameter and mass are both limited by portability constraints. As for the mass we have decided on design which allows the user to fill the container with a specified value of a substances which sinks in water to insure a minimum weight is reached. We also split the mass into multiple smaller, more easily lifted allotments. As the rotational speed of motor, we initially selected a generator with a 3000 to 1 gear ratio to allow for the longest fall time possible to increase the time of one fall for ease of use.

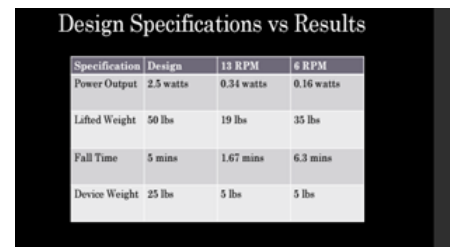
8. Advantages

- Utilize at any place on earth.
- Small energy input to perform a longtime energy conversion.
- Eco friendly and pollution free.
- This energy will remain forever.

9. Future works

To make it easier on the operator multiple pulleys could be install to provide mechanical advantages this become more important as a weight get heavier or is hung higher. Both of this action increases potential energy of system. It is required to have a pully system, as a normal person will have trouble lifting weight to 9 feet without assistance multiple pully can be used to vastly decrease the weight felt by the operator when the lifting the weight.

10. Result



Specification	Design	13 RPM	6 RPM
Power Output	2.5 watts	0.34 watts	0.16 watts
Lifted Weight	50 lbs	19 lbs	35 lbs
Fall Time	5 mins	1.67 mins	6.3 mins
Device Weight	25 lbs	5 lbs	5 lbs

Fig. 4. Design specifications

11. Conclusion

The gravity power generation mechanism of the present in invention utilize gravity energy conversion unit to which can provide a continues and stable operation to continuously convert the gravity potential energy into the kinetic energy then into electrical energy so as to perform long time, effective and stable energy output. The present invention not only can independently generation electricity but can be parallel to the wind power and solar power generation system to generate electricity thus in this paper we studied a power generation mechanism. That produce power gravity having a simplified structure as well as ecofriendly and which would overcome the present problem of pollution and global warming faced by other power generation method.

Acknowledgment

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