**Collaboration**

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Title of the project

**Wireless transmission of electricity**

**Introduction**

The aim of the project is to solve the problems associated with transmission of electricity through wires

And the following are some advantages of our project in Tanzania

1. Reduces costs
2. Remove the occurrence of fire accidents through electricity
3. Saves space
4. Prevent the risk of electric shocks

**Components planned**

1. Ultrasonic sensor
2. Arduino uno
3. Led
4. Receiving antenna
5. Rectifier
6. Power manager
7. Lcd display
8. transformer

**Mechanism planned**

The whole process takes place through four stages that are

1. The primary stage

According to the law of conservation of energy, energy can be transformed into any form but cannot be destroyed or created. The same as sound energy can be converted into electric energy

Starting with the production unit. The production unit produces electricity that is converted into sound waves by an instrument called ultrasonic sensor

Then the sensor will receive electricity and convert them into waves that are transmitted to a specific distance through free space. the calculations of distance and frequency shall be discussed later.

The waves travel through space over a specific distance

2.Secondary stage

The waves travelling through space are then catch up by a special antenna, the antennae will perform a reverse action by changing back the waves into electric energy.

In the secondary stage there is a impedance matching network, which consists of

.S11

.Q factor

Band width

Receiving antenna

3.Rectification stage

The electricity is rectified to direct current by using special instruments called diodes

The principles of rectification and electromagnetism must be taken into consideration

4.power management unit and final consumers that are electric appliances

The electricity is either stepped up or down by the aid of a transformer. then it is ready for the final usage

NOTE; the second and fourth stage takes place at the appliance itself