



Wellcome to our Presentation

Project Title : Wireless Power Transmission Circuit

Course Title: Mobile and wireless communication sessional

Course code: CSE

Submitted by:

Name	ID
Arifur Rahman	1802034
Sumi kayser	1902003
Asha Roy	1902021
Walima khatun	1902026

Introduction :

What is WPT ?

- The Transmission of energy from one place to another without using wires.
- Conventional energy transfer is using wires
- But, the wireless transmission is made possible by using various technologies

Components Required :

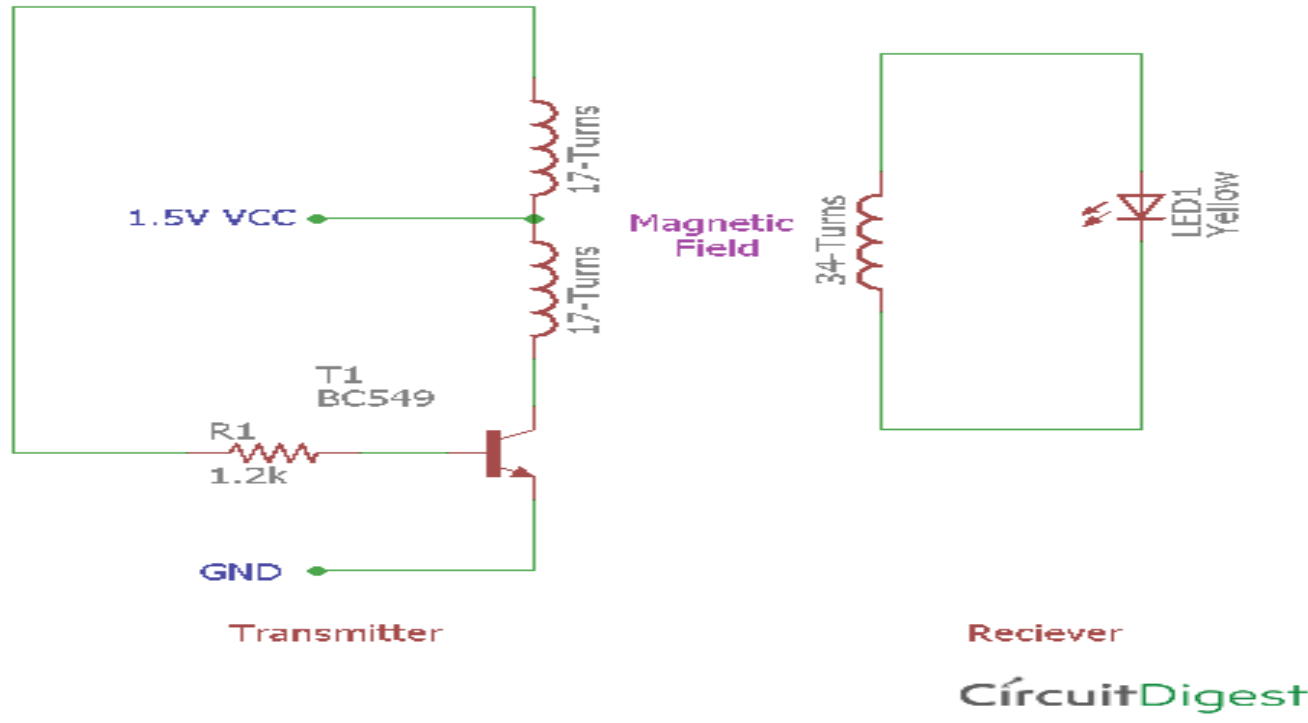
- Transistor
- LED
- Breadboards
- Hook up wires
- 1.2k resistors
- Copper wires
- 1.5v battery

Why WPT

- Reliable
- Efficient
- Fast
- Low maintenance cost
- Can be used for short range or long range

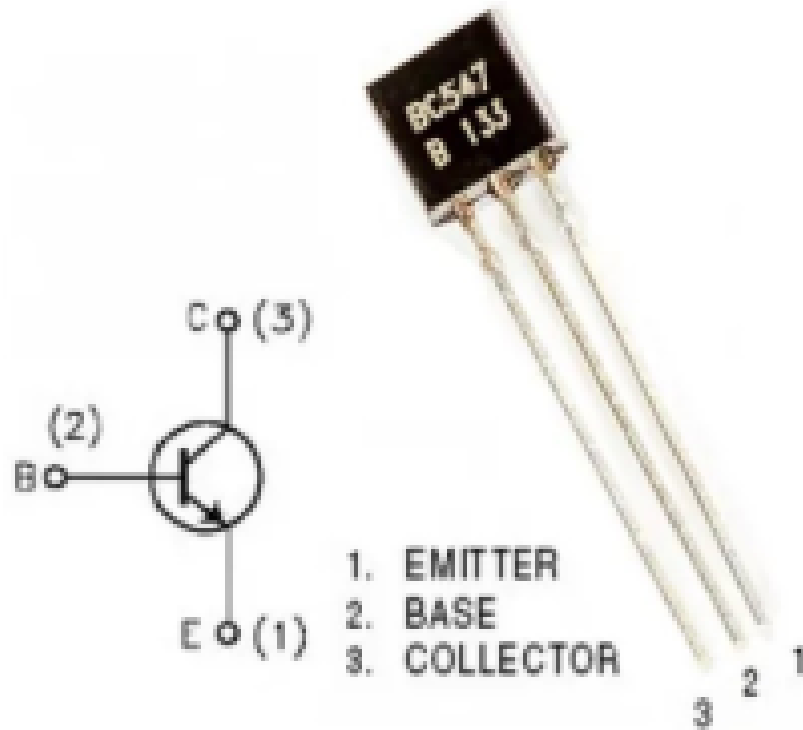
Circuit Diagram :

It has two parts, Transmitter, and the receiver.



Construction of the Wireless Power Transmission Circuit :

The transistor is NPN Transistor, any basic NPN transistor can be used BC547.



Working of the Wireless Electricity Transfer Circuit :

Both the circuits are constructed on the breadboard and powered using a 1.5V battery. The circuit can't be used for more than 1.5 volt power supply as transistor may heat up for excessive power dissipation. However, for more rating, additional driving circuits are needed.

This wireless electricity transmission is based on the Inductive coupling technique. The circuit consists of two parts- **Transmitter and Receiver**.

Applications of Wireless Power Transmission :

- **Consumer Electronics**
- **Medical Devices**
- **Electric Vehicles**
- **Robotics**
- **Wireless Sensors**
- **Smart Home Devices**
- **IoT Devices**
- **Smartphones**
- **Laptops and Tablets**

Advantages of WPT:

Wireless Power Transmission (WPT) offers several advantages across various applications, contributing to enhanced convenience, efficiency, and flexibility. Some of the key advantages include:

- **No Physical Connections**
- **Flexibility in Placement**
- **Less Mechanical Stress**
- **Increased Safety**
- **Efficiency and Scalability**
- **Environmental Impact**
- **Increased Design Flexibility**
- **User-Friendly**

Limitation of wireless power transmission:

- **Energy Losses**
- **Limited Range**
- **Environmental Factors**
- **Power Limitations**
- **Safety Concerns**

Conclusion of WPT:

The basic aim of this project is to transmit electric power wirelessly. Wireless Power Transfer (WPT) or wireless energy transmission is the transmission of electrical power from a power source to a consuming device without using solid wires or conductors.

Thank you