



# COURSE PROJECT

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## 909 TRANSFORMER USING VOLTAGE REGULATOR CIRCUIT

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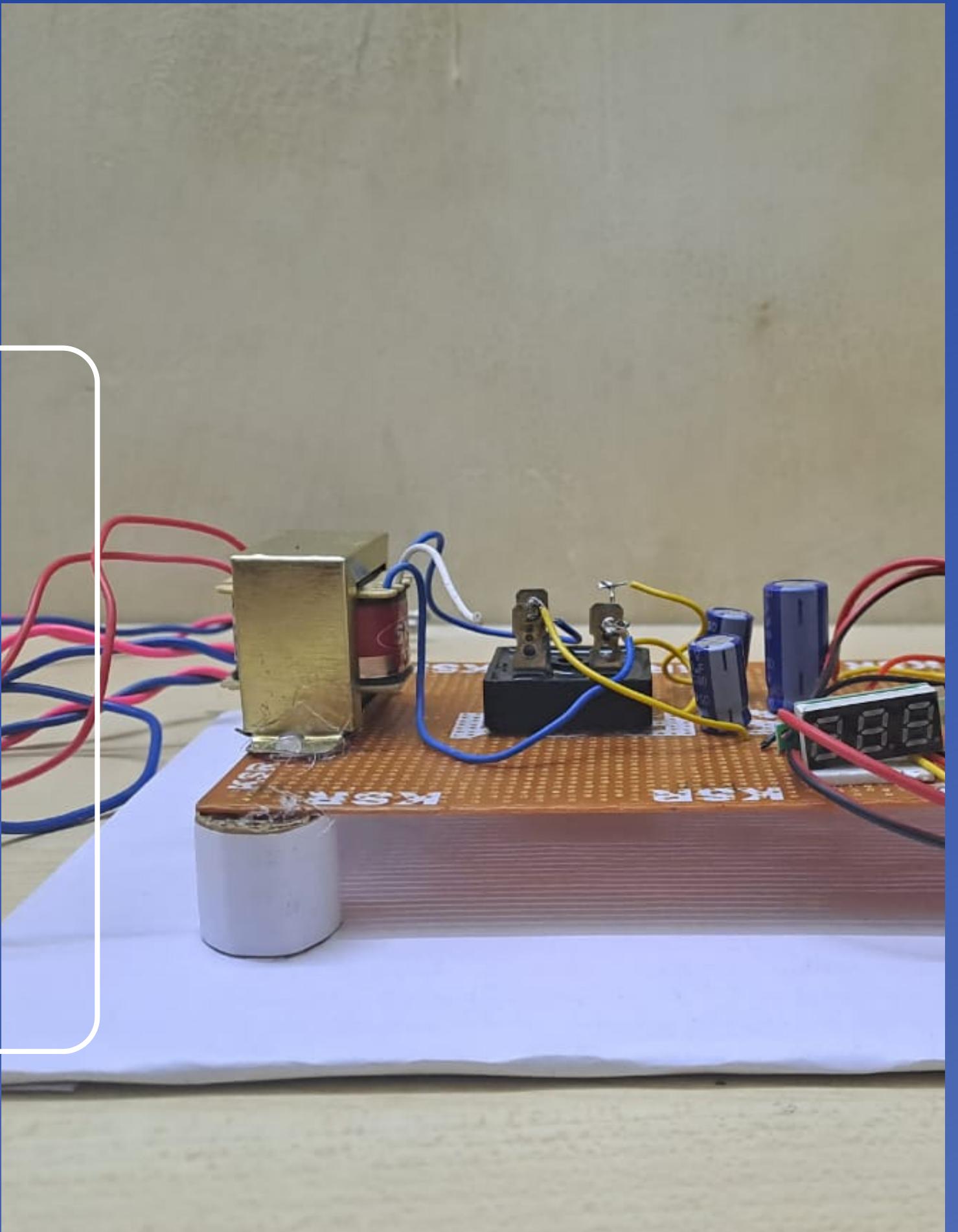
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# ABSTRACT

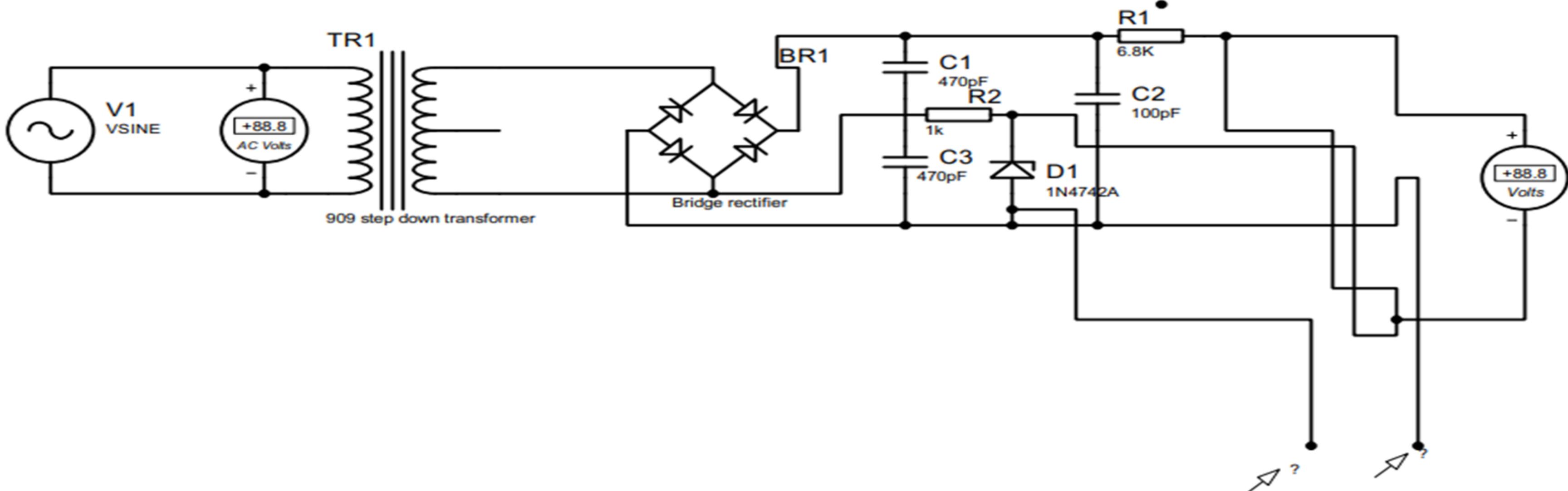
- A 909 transformer, in conjunction with a voltage regulator circuit, forms a vital component in electrical systems.
- The voltage regulator circuit ensures precision in voltage control, maintaining a constant output voltage despite fluctuations in the input voltage.
- By effectively stabilizing voltage, these components contribute to the safe and efficient operation of various electronic devices and systems, from industrial machinery to consumer electronics.



# COMPONENTS USED

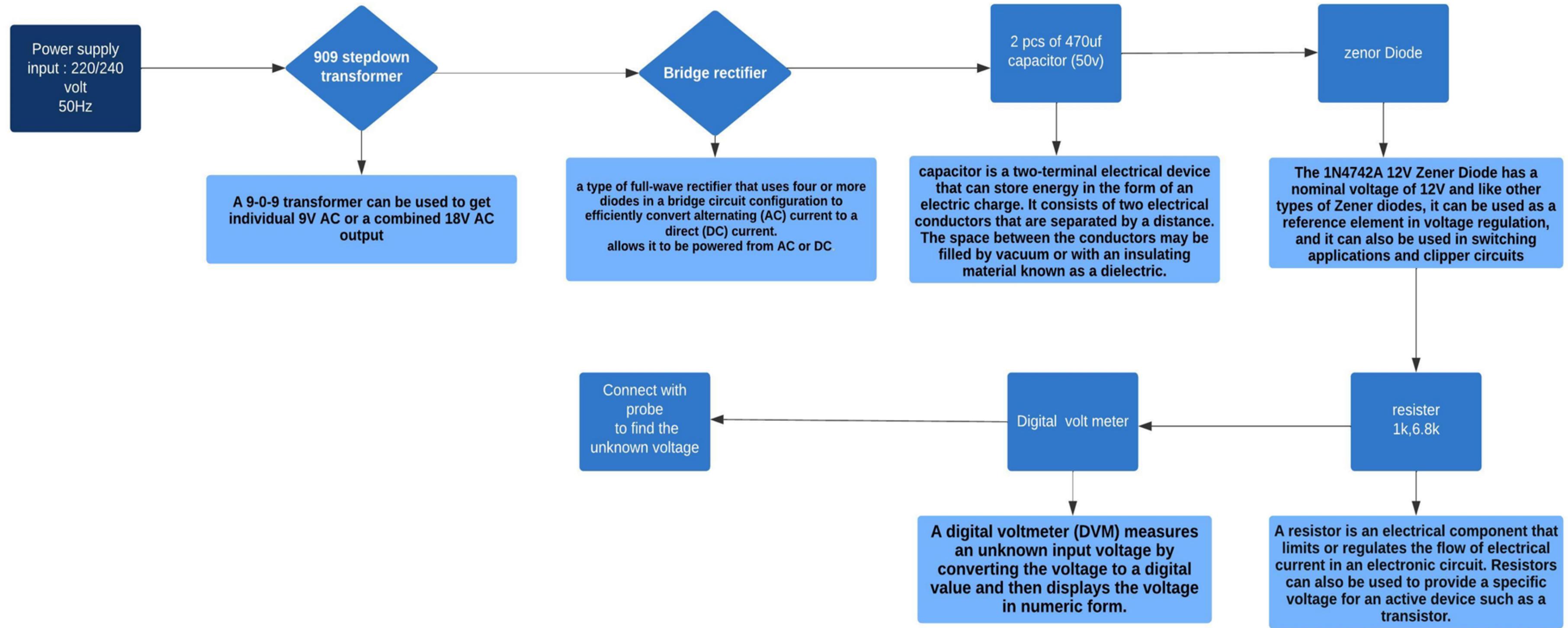
- 909 STEPDOWN TRANSFORMER
- BRIDGE RECTIFIER
- 50V 2 X 470UF CAPACITOR
- 100V CAPACITOR
- 6.8K RESISTOR
- 1K RESISTOR
- 12V ZENER DIODE
- MINI VOLT METER

# CIRCUIT DIAGRAM

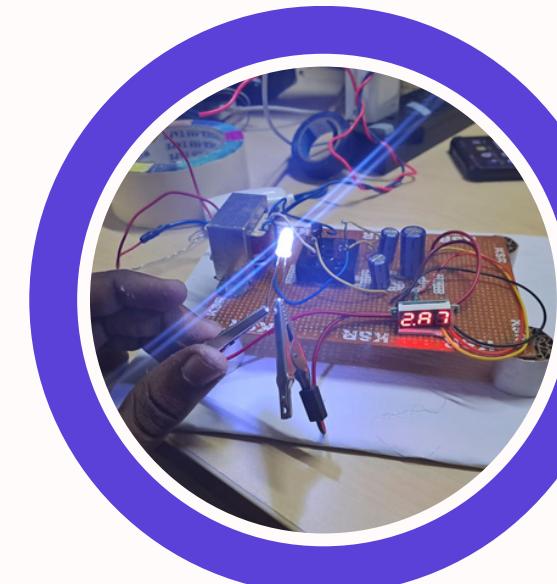
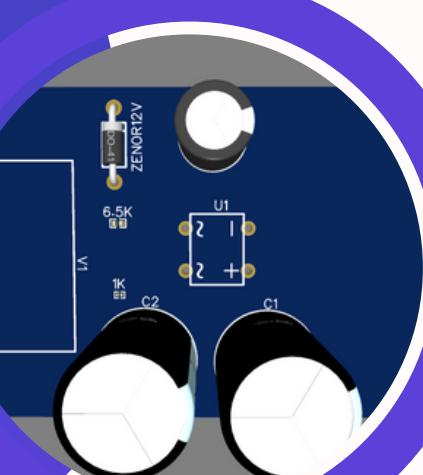


# PROCESS FLOW CHART

MOHAMED IMRAN S ECE | September 12, 2023



# BENEFITS & DRAWBACKS

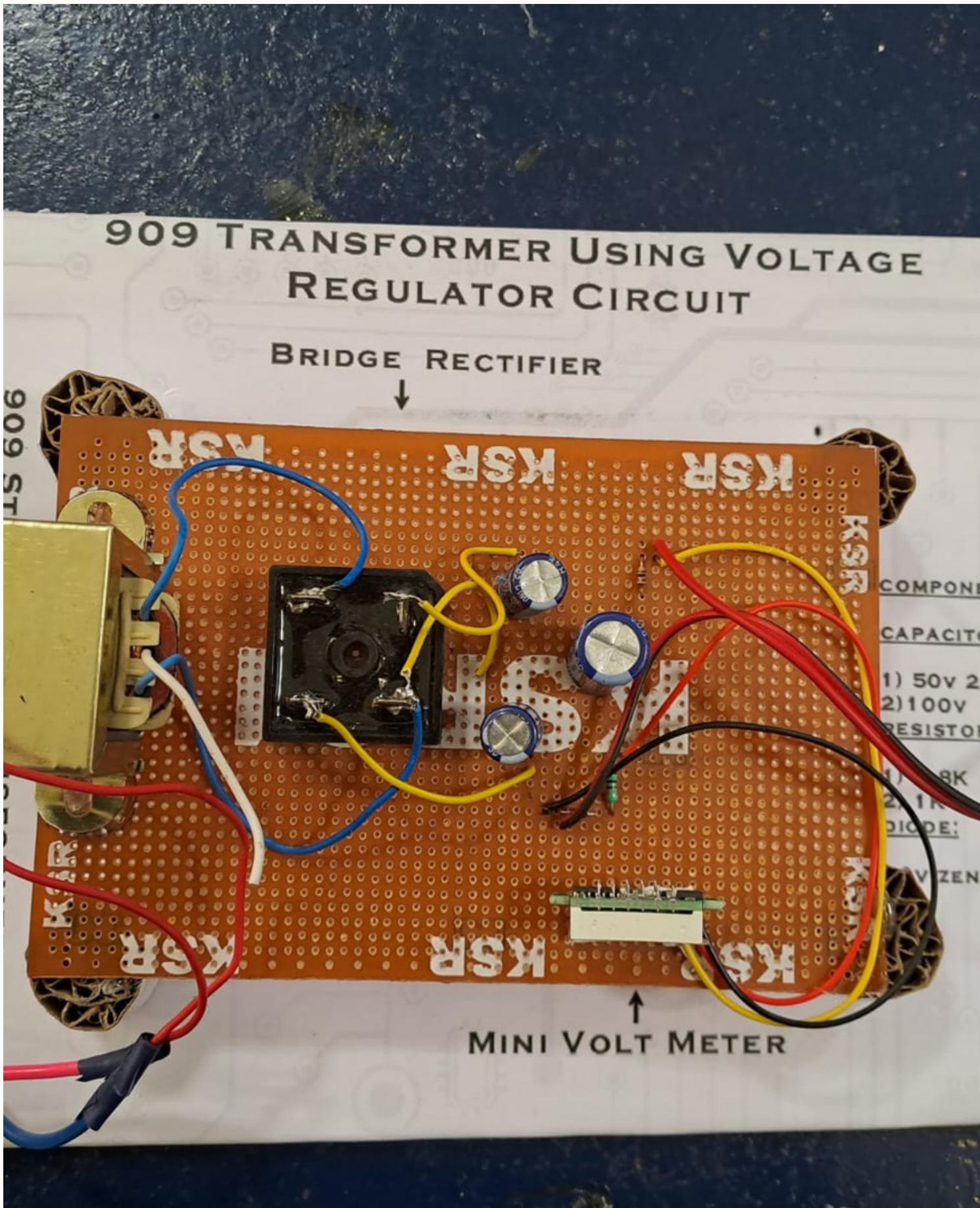


## Benefits

- high efficiency compared to traditional linear power supplies. They operate by switching the input voltage on and off rapidly, which reduces energy loss as heat.

## Drawbacks

- generate electromagnetic interference due to their high-frequency switching operation. This can affect nearby electronic devices and may require additional filtering components or shielding to mitigate



# APPLICATIONS

- 01 To find a unknown voltage of a components and circuit.
- 02 To Check the components working or not.
- 03 An electronic power supply uses a switching regulator to convert electrical power efficiently.