American University of Science and Technology

Faculty of Engineering

Department Of Computer and Communication Engineering



Electronics Lab

*Power Supply with a Transistor*

Submitted to

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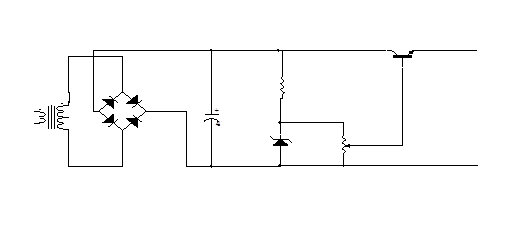
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# Introduction

In the eighth project we built a power supply using a it gives as a variable DC output between 0V and 30V.

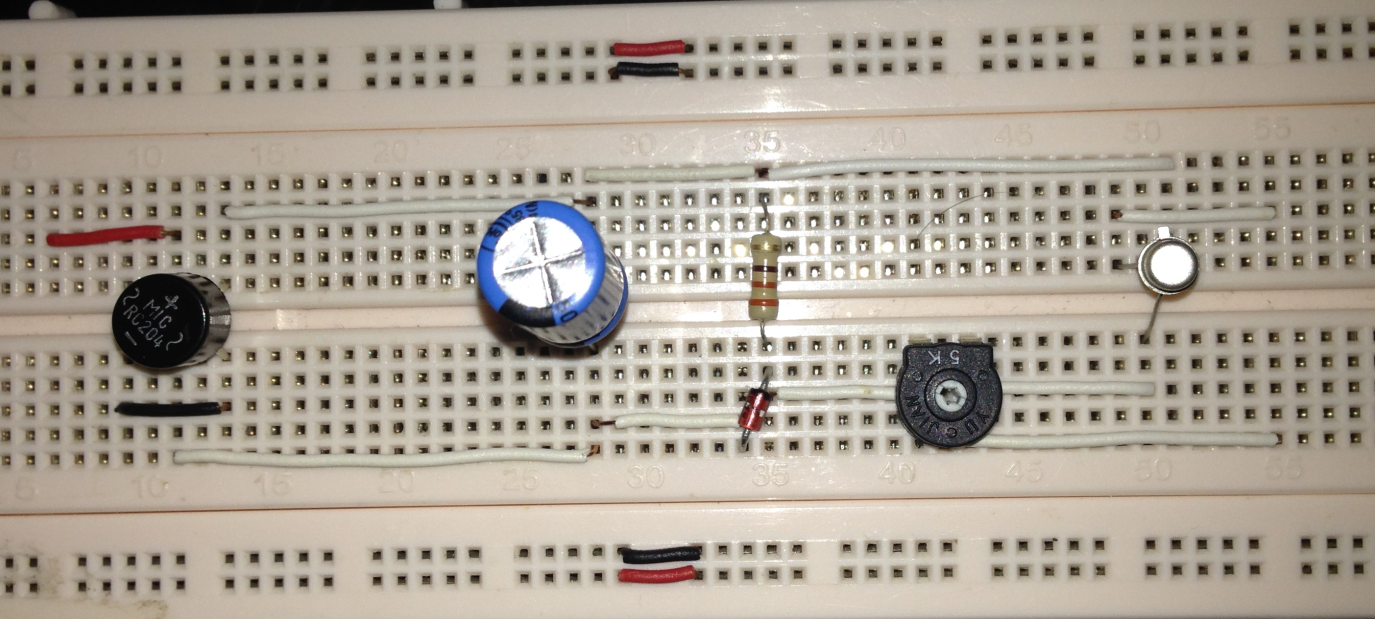
# Schema

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# Materials

* Transistor (2N222)
* Zener diode 15V
* Bridge rectifier (1A)
* Transformer 12V-0V-12V
* Capacitor
  + 3 0.1uF non polarized
  + 1 470uF polarized capacitor
* Resistor: 330 Ω
* Pot of value 4.7K Ω

# IMPLEMENTATION

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# Results and Discussions

We have got the desired DC voltage of a variation ranging from 0V through 30V that changes as we change the potentiometer.

# Applications:

* Supplying a DC voltage applications varying (0V 🡺30V)
* op-amps circuits and Microcontrollers (5V usually)

# Conclusion

The theoretical studies were compatible with the results that we got upon testing our circuit we capable to have a variable dc output varying between zero volt and thirty volt it varies according to our needs as we vary the value of the variable resistor that functions as a voltage divider

# References

Electronic Devices, Conventional Current Version. Thomas L. Floyd.