VARIABLE POWER SUPPLY

The electronic devices are very sensitive to the fluctuations in the power fed to them. This problem can be solved by using regulated power supply for them. This project about power supply circuit is equipped with an adjustable voltage regulator to adjust the output in accordance with the requirement. Adjustable voltage regulators have both line and load regulation which is better than standard fixed regulators. The circuit is made using following active and passive electronic components:

D5 D3 R2 Ķ 1N4007 LED D1 U1 LM317EMP 0 N 2 VI vo ADJ 1N40D7 R1 AC SUPPLY (230 **D**4 100 1N4007 D2 C1 1000uF RV1 OUTPUT(5V) 1N40D7 TR1 TRSAT2P3S C2 100uF

CIRCUIT DIAGRAM:

The LM317 device is an adjustable three-terminal positive-voltage regulator capable of supplying more than 1.5 A over an output-voltage range of 1.25 V to 37 V.

COMPONENTS REQUIRED:

- CENTER TAPPED TRANSFORMER
- LM317
- 4 DIODES(IN4007)
- RESISTOR(100ohm)
- VARIABLE RESISTOR(pot) (10K
- CAPACITORS C1=1000uF C2=10uF



PCB LAYOUT:

FRONT SIDE:



BACK SIDE:

