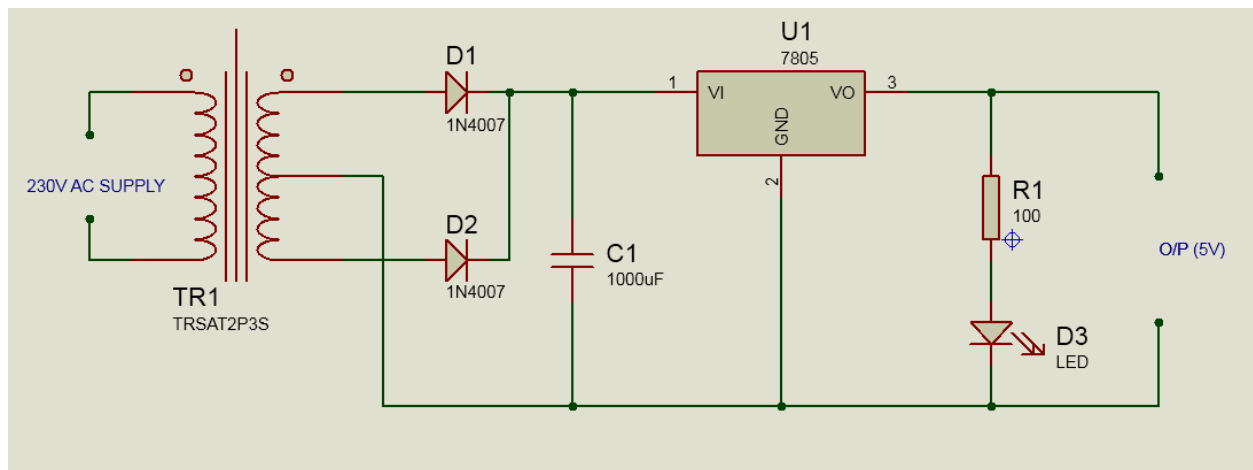


# FIXED POWER SUPPLY







A regulated power supply is vital for any electronic appliance because the semiconductor devices used in them have precise current and voltage ratings. Any deviation from these rating can damage the devices. This circuit supplies a constant DC output derived from the AC mains supply. The unregulated DC output rectifier is fixed to a constant voltage level by using a voltage regulator. This circuit uses a 7805 linear voltage regulator, capacitors and resistors along with a diode derived full wave center tapped rectifier. From providing a fixed voltage supply to making sure that output reaches undisturbed to the device, the diodes and capacitors manage high efficient signal conveyable.

## CIRCUIT DIAGRAM:



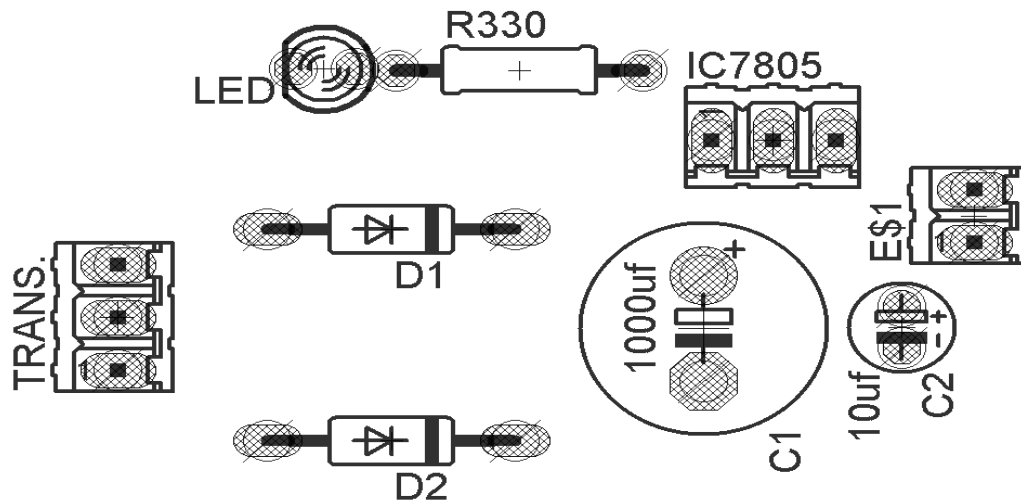
IC 7805 is a 5V Voltage Regulator that restricts the voltage output to 5V and draws 5V regulated power supply. IC 7805 is a series of 78XX voltage regulators. It's a standard, from the name the last two digits 05 denotes the amount of voltage that it regulates. Hence a 7805 would regulate 5v and 7806 would regulate 6V and so on.

**COMPONENTS REQUIRED:**

- CENTER TAPPED TRANSFORMER 
- VOLTAGE REGULATOR 7805 
- DIODES(IN4007) 
- RESISTOR(330ohm) 
- CAPACITOR(1000uF) 
- LED 

**PCB LAYOUT:**

**FRONT SIDE:**



BACK SIDE:

