TENET TECHNETRONICS

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Application Note on Interfacing Arduino with Variable voltage regulator

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Interfacing Arduino UNO with LED

Introduction

In this application note we will be discussing on generating a variable voltage regulator using LM338 Breakout.

LM338: In many cases we can manage with a fixed voltage regulator such as 5V or 12V, but occasionally we need a non-standard voltage. In a certain circumstances we might require a variable voltage regulator; Tenet Technetronics introduces an adjustable voltage regulator breakout wherein we can vary the voltage according to our convenience. The variable voltage regulator is capable of supplying in excess of 1A over 1.2V to 32V. This breakout has capability of allowing peak currents of up to 7A to be drawn from the regulator with the protection of current limit circuitry. This variable voltage is produced by LM338.

Step1. The Materials required are:

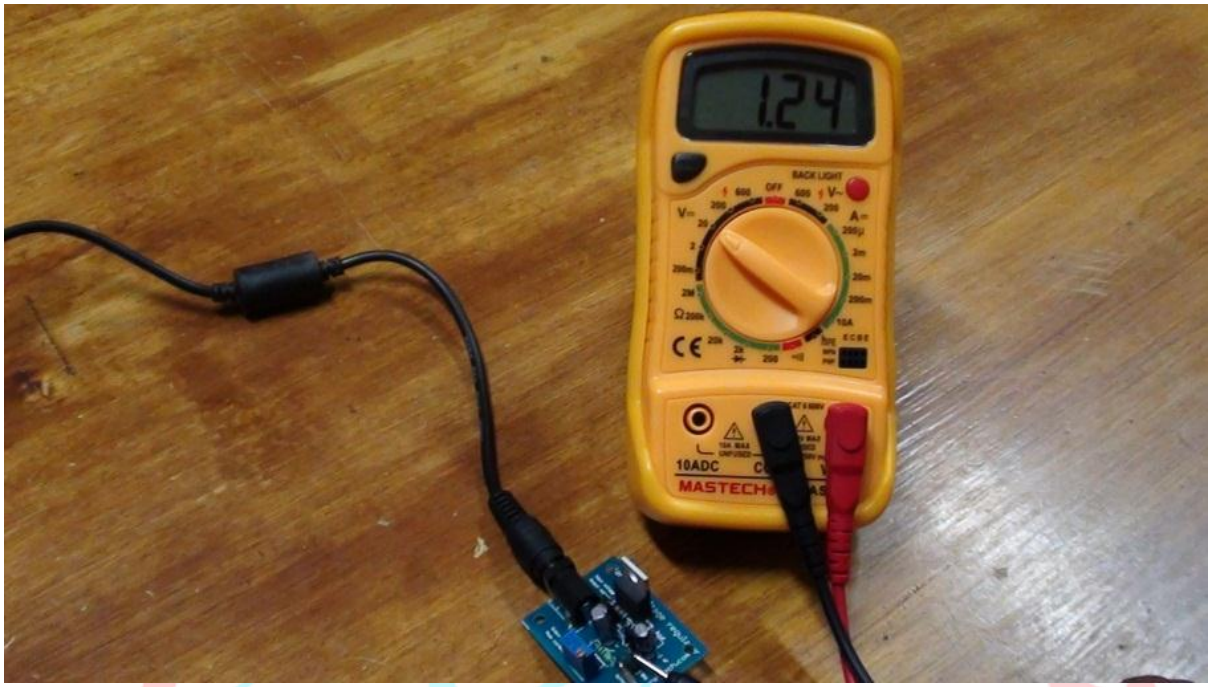
- Variable voltage regulator Breakout
- Male to male Jumpers

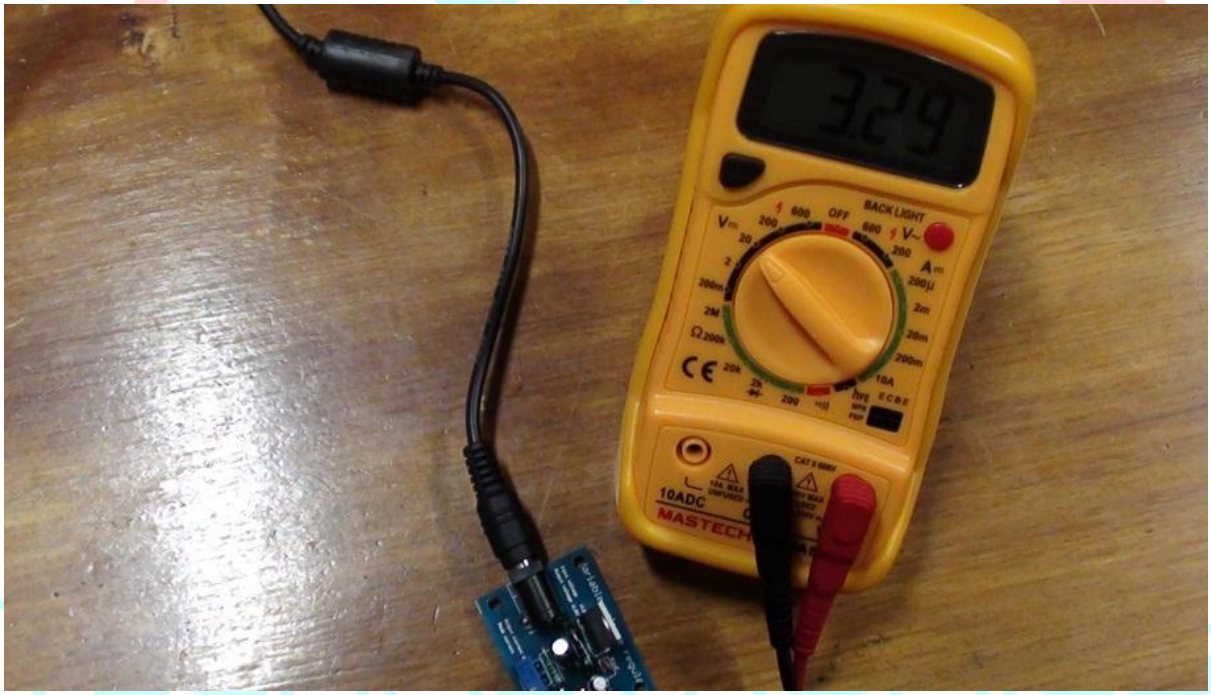
Applications:

1. Adjustable power supply is one of the main applications of the variable voltage regulator; this application comes in to picture wherein we are in need of varying our output voltage.
2. If a circuit is in need of driving constant current like LED drivers this regulator breakout is capable of providing constant current regulation to the device.
3. If a circuit is driving a current more than 3A for example like if you are using a Gas sensors of around 5 to 6 at a time, you will be in need of this breakout which can provide the sufficient current.
4. Battery Chargers
5. Constant Current Regulators

Experiment:

In the below figures we can see the variable voltages that is being produced by the regulator breakout board





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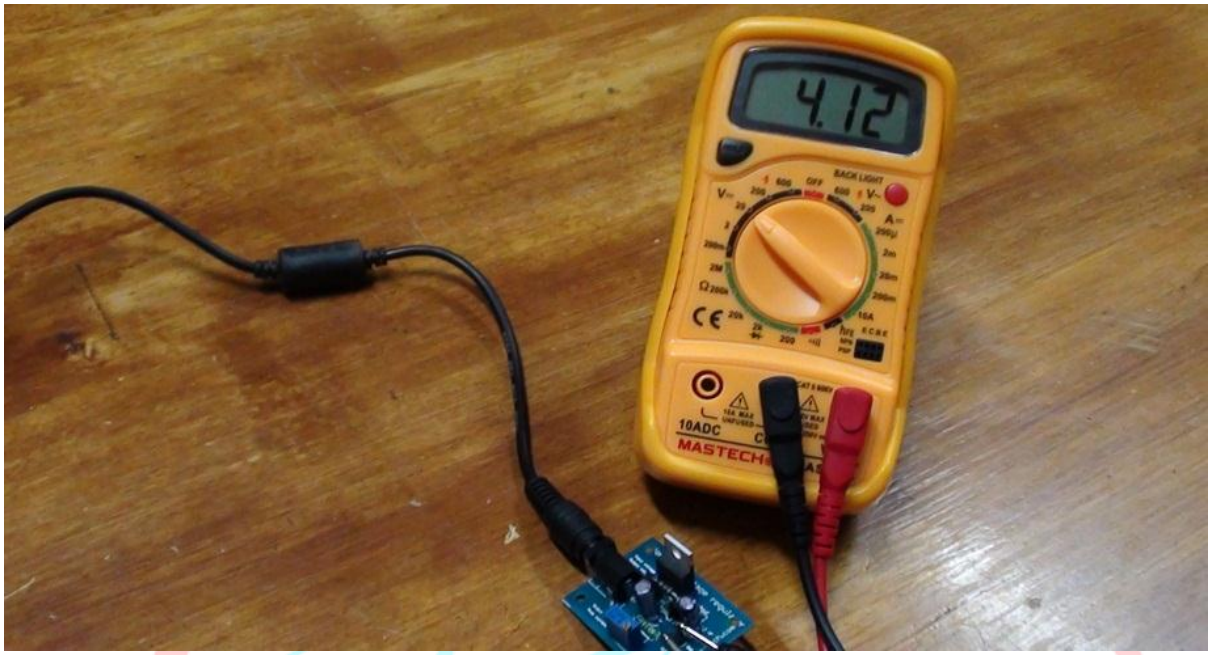

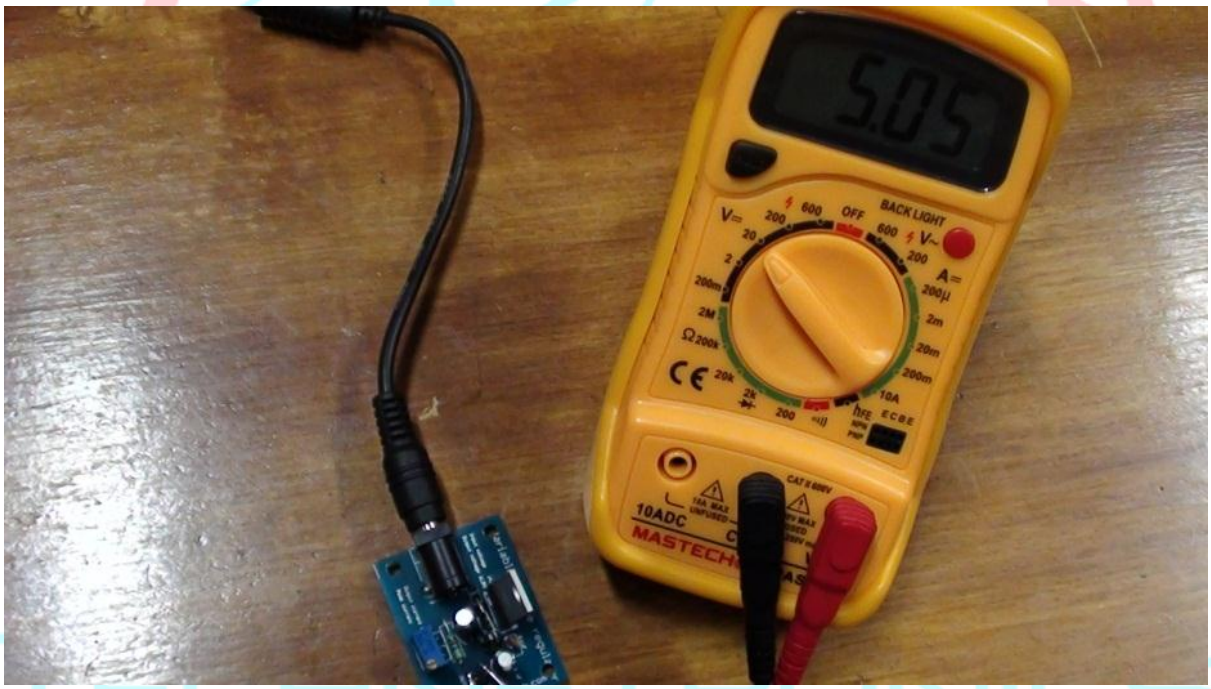

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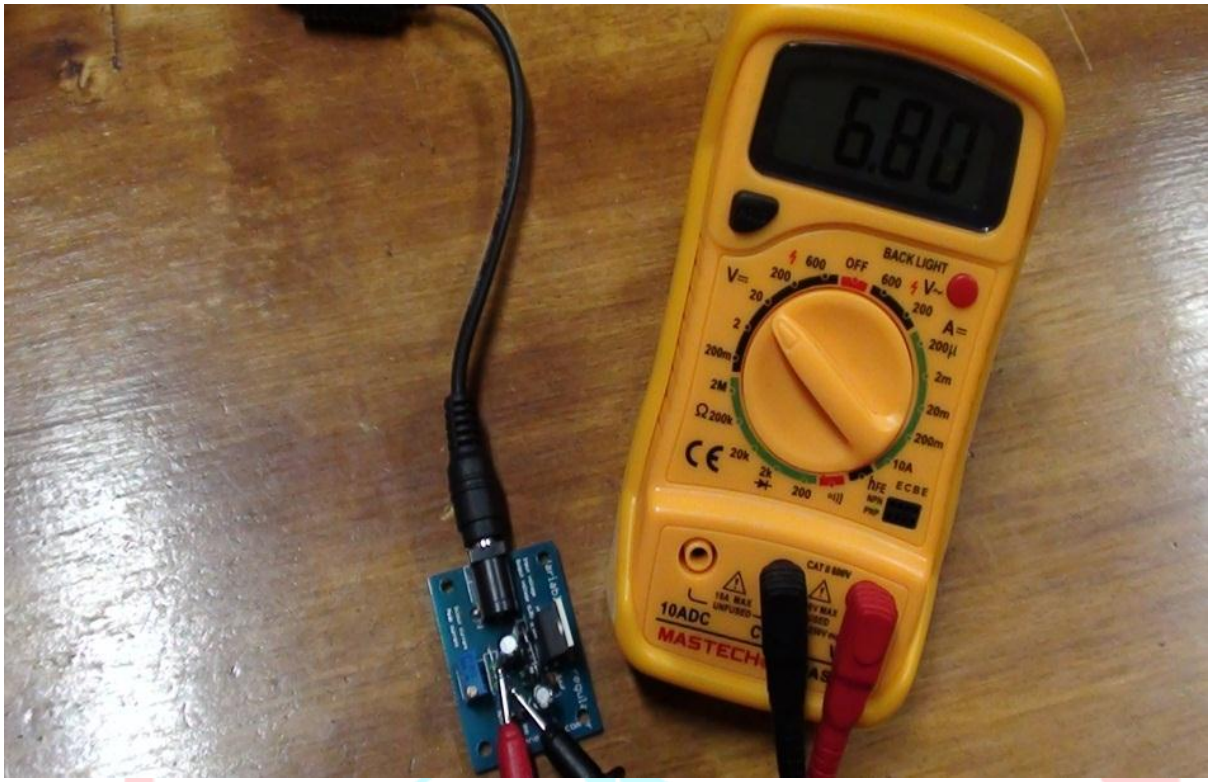

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