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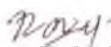
**KEU 380  
' CHRISTMAS LIGHT FLASHER'**

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## ABSTRACT

Widely regarded as the consummate digital diagnostic tool, our probe Christmas Light Flasher are device that is prudent to keep on the work bench. Now while many others commercial modal are available to market and prohibitive in cost, we find there is still a way to have our own Christmas Light Flasher by build it ourselves.

This Christmas Light Flasher is very useful as a home accessory. Actually when festivals season, like Hari Raya, Deepavali, Christmas, Chinese New year and others. Its also very interested us to know how the step of light running with are pattern. The light should operate in the same sequence as thee LED's. Furthermore, the hardware development of or project also earned less cost because it only uses less of components.

The control in the Christmas Light Flasher is supply of transformer 6V-0-6V (100mA) to generate all the main components. The front panel LED's should flash in the sequence described earlier. Added a speed control pot, this should vary the seed as expected. Disconnect thee unit from the main and connect a set of Christmas lights to each output.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background Theory

This year we present straightforward fixed pattern flasher for three sets of lights. However this is not we usual 1-2-3 chasing pattern, this units has six steps, 1-1+2+2+3-3-3+1, and then repeated. If he three sets of the lights are mixed on the tree, it is not easy to see the pattern! On the prototype the speed was fixed to about three steps for second, but it would be simple matter to put a control pot on the front panel to set the mood if required.

The triac outputs are driven from zero-crossing opto-isolators, which virtually eliminate radio interference. The triacs are hard driven, making the outputs are suitable for driving inductive load such as the modern low voltage transformer driven Christmas.