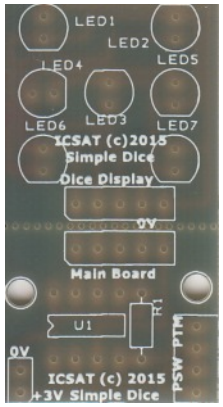


Simple Dice

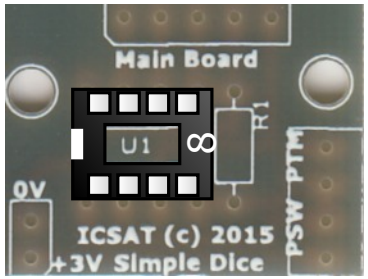
Introduction

The Simple Dice kit is an example of the use of Programmable Components within D&T. The kit uses a PIC chip, which has been programmed to function as a Dice and drive a set of 7 LEDs in a 'traditional' dice face arrangement.

- PIC 12F683 with Dice Firmware
- 7 LEDs in a 'traditional' dice face arrangement
- On/off latching push button
- Push to make button to roll the dice.
- PP3 battery snap for 3V battery holder - AA or AAA
- Can use 3V 3032 coin cell instead
- The pcb can be separated into 2 parts if needed.
- 25mm x 46mm

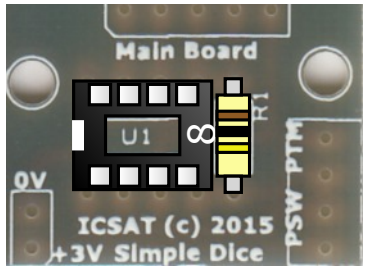
Assembling your Simple Dice

Solder on to the pcb the 8 pin DIL chip socket, with the notch matching the marking.



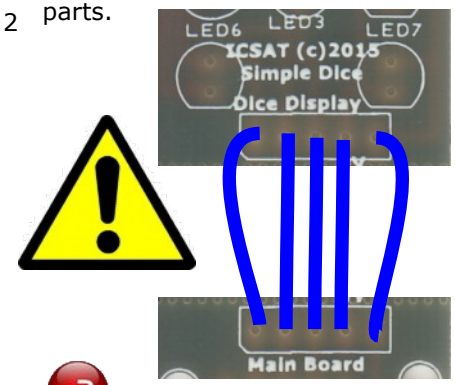
1

Solder the 10K resistor into the position marked R1.



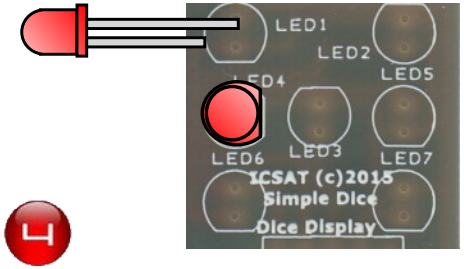
2

OPTIONAL Solder in place the 5 jumper wires if you have separated the pcb into 2 parts.



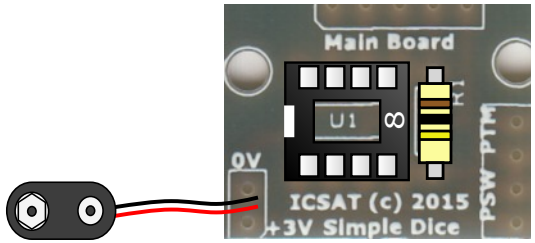
3

Solder in place your 7 LEDs, you **MUST** ensure they are inserted correctly and match the markings on the pcb, using the short leg into the hole nearest the flat on the marking



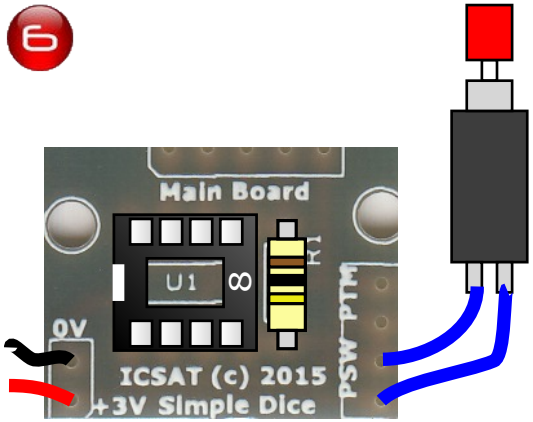
4

Solder the battery clip to the pcb, the red wire is +V and the black wire is 0V.



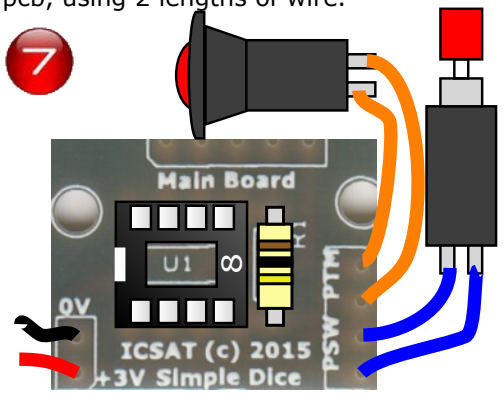
5

Solder the power switch to the pcb, using 2 lengths of wire.



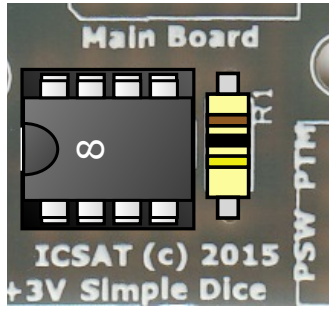
6

Solder the PTM (push to Make) switch to the pcb, using 2 lengths of wire.



7

Carefully insert the PIC chip with the notch matching the notch on the DIL socket.



8

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Simple Dice Manual

Ver. 1.50

Checking your Dice

Before connecting your battery pack, check carefully al the connections and that the PIC chip is inserted the right way around.

Once that is done you can connect your **3V battery pack** and switch on

Operating your dice

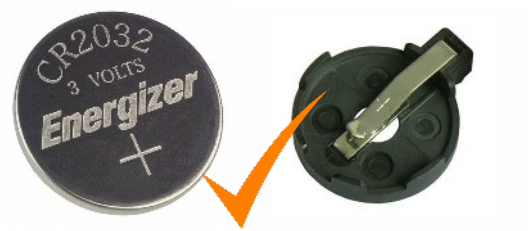
To operate your Dice, switch on. The dice at first switch on will light the middle LED, the number '1'.

Press the push button for a short time and release the Dice will now continue to pick numbers at random, it will slow down and stop with one number displayed.

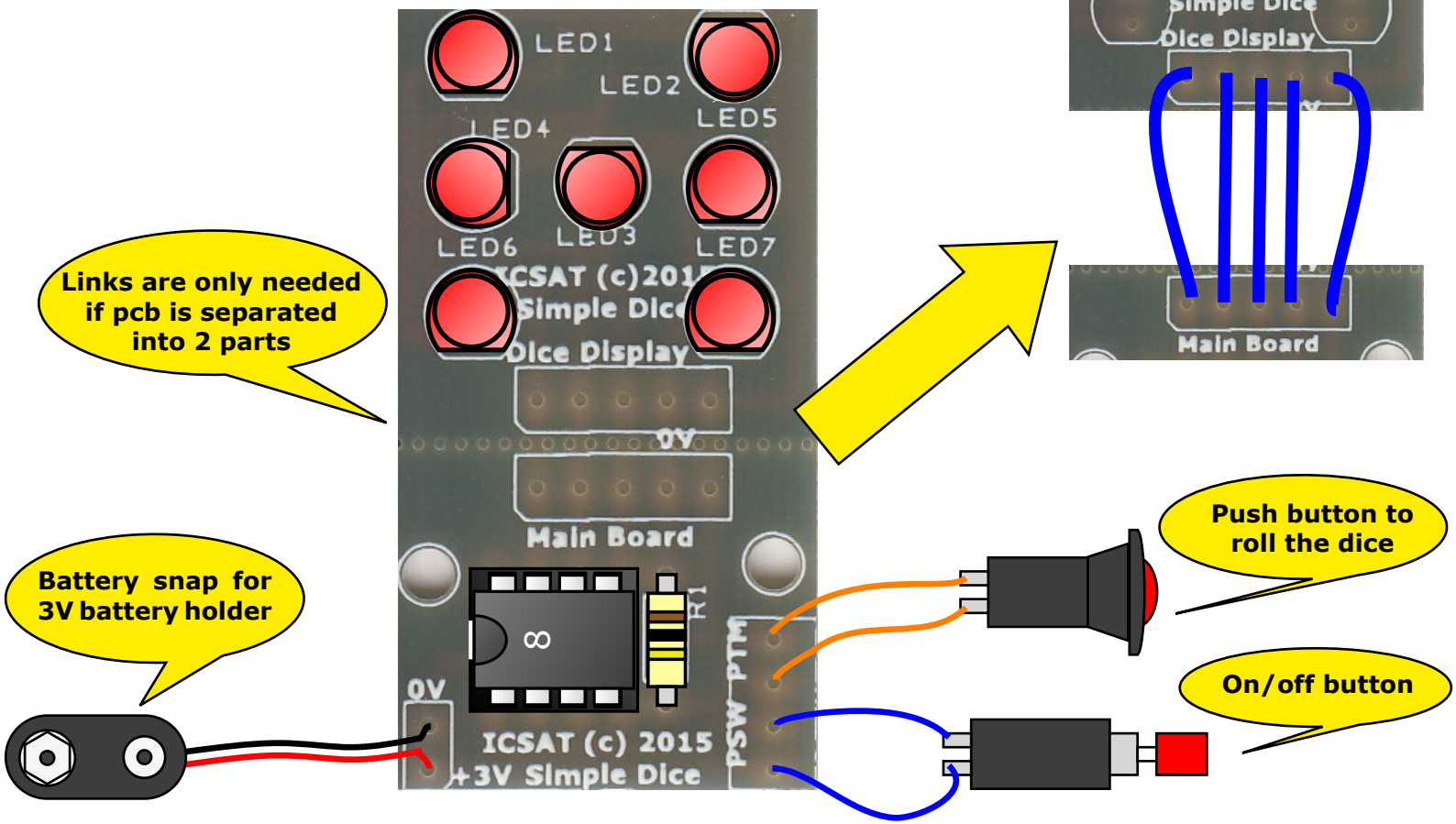
To roll a new number press the push button again.

Power Supply

The Simple Dice is designed to use a 3V power supply, this can be easily obtained from a set of 2 x AA / AAA batteries or a 3V coin cell such as a 2032 - you can purchase coin cell holders for this from Rapid Electronics **18-0498** or Kitronik **2252-01**



Completed Simple Dice Reference diagram



Do not attached PP3 9V battery it will destroy your Simple Dice circuit.

AA **AAA**

Support

ICSAT offers **FREE Tech Support** via our website or Facebook

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