FUTURE KIT

HIGH QUALITY ELECTRONIC KITS

ELECTRONIC DICE GAMES CIRCUIT

CODE 129 LEVEL 1

This circuit is an electronic circuit kit that can replace for dice casting. When press the switch, 7 LEDs will display altogether with high speed, a random LED will display last while others stop when the switch is pressed off.

Technical specifications:

- power supply: 9VDC.
- consumption: 18-30mA max.
- dimensions of PCB : 3.59 x 1.59 inch.

How to works:

The circuit diagram shown in figture 2 can be divided into two parts. The simplest part is used to multi-vibrator (TR1 and TR2) of frequency generator. TR1 and TR2 will alternately working one by one. Speed of LEDs chasing is depending on VR100K, R1 to R4, C1 and C2. When press and hold SW1, the pulsating output at the collector of TR2 is fed to pin14 of IC4017 through SW1. This output is used to clock a decade counter IC4017. This counter has 6 outputs and therefore counts up from 0-5. Each of these 6 outputs is connected to an LED. R6 to R12 is voltage drop for each LED.

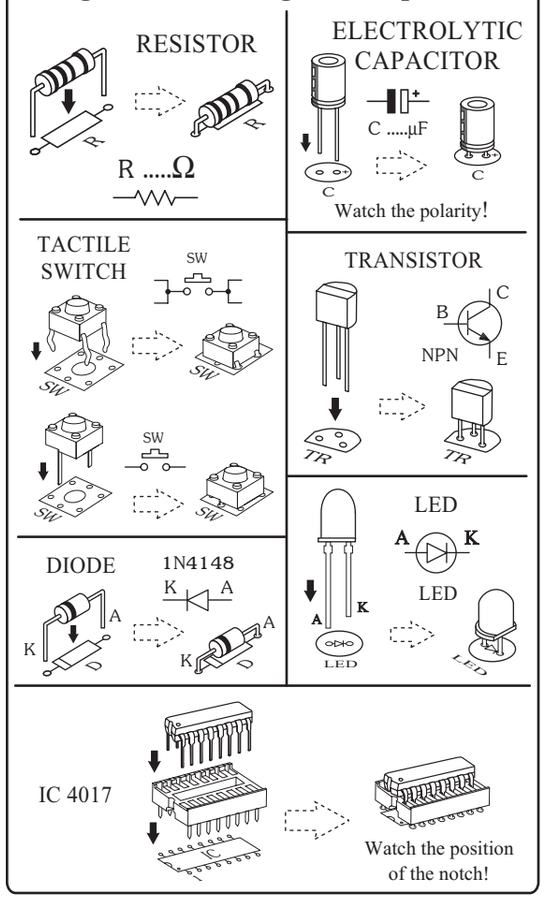
PCB assembly:

Shown in Figture 3 is the assembled PCB. Starting with the lowest height components first, taking care not to short any tracks or touch the edge connector with solder. Some tracks run under components, and care should be taken not to short out these tracks. All components with axial leads should be carefully bent to fit the position on the PCB and then soldered into place. Make sure that the electrolytic capacitors are inserted the correct way around. The LED has a flat spot on the body which lines up with the line on the overlay. Now check that you really did mount them all the right way round!

Testing:

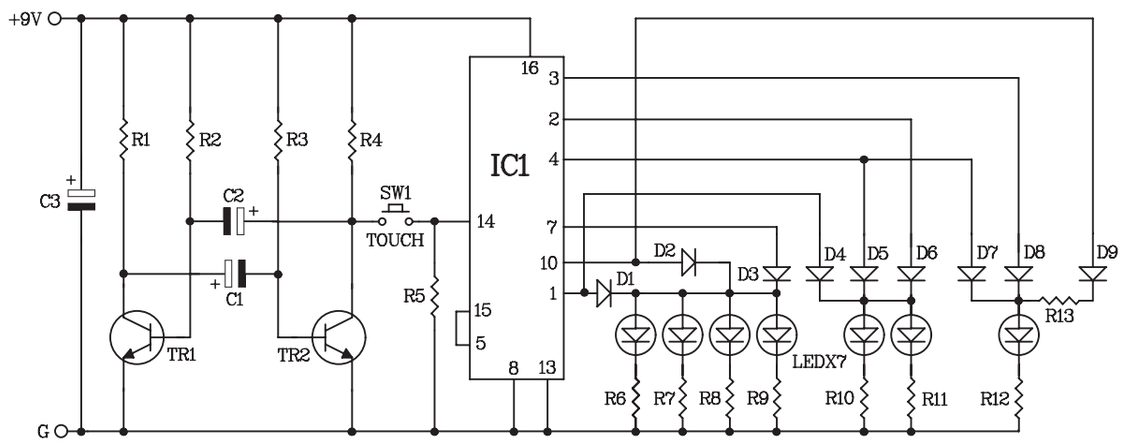
Connect the power supply 9VDC to circuit. With the positive pole is connected to "+" point and the negative pole is connected to "G" point. Press SW1, all LED will display chasing and display uncertainly.

Figure 1. Installing the componants



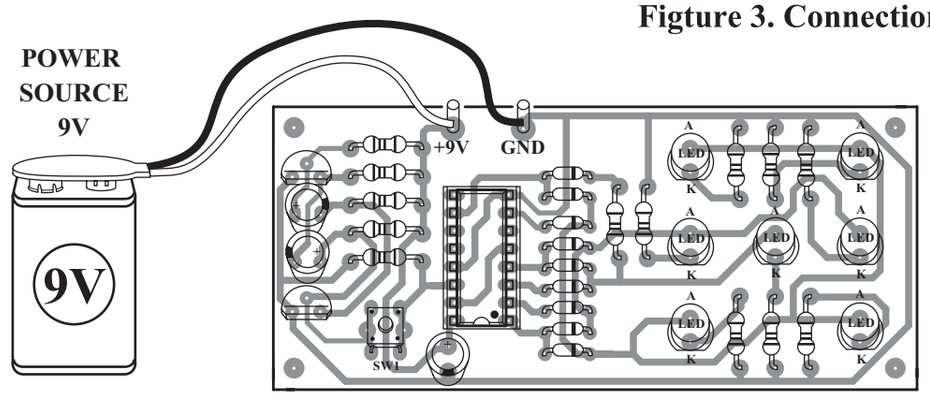
Troubleshooting:

The most problem like the fault soldering. Check all the soldering joint suspicious. If you discover the short track or the short soldering joint, re-solder at that point and check other the soldering joint. Check the position of all component on the PCB. See that there are no components missing or inserted in the wrong places. Make sure that all the polarised components have been soldered the right way round.



Figture 2. The electronic dice games circuit

Figture 3. Connections



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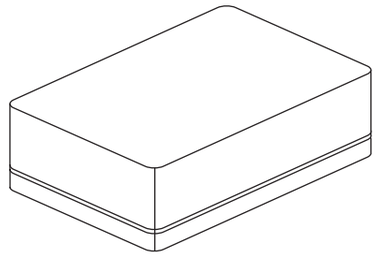

NOTE:

FUTURE BOX FB04 is suitable for this kit.

NEW KIT SET NEW

CODE FK	DESCRIPTION	POWER
271	LIGHT ACTIVATE ALARM (COCK VOICE) WITH SPEAKER	3VDC
272	SPACE GUN 3 TONE WITH SPEAKER	9VDC