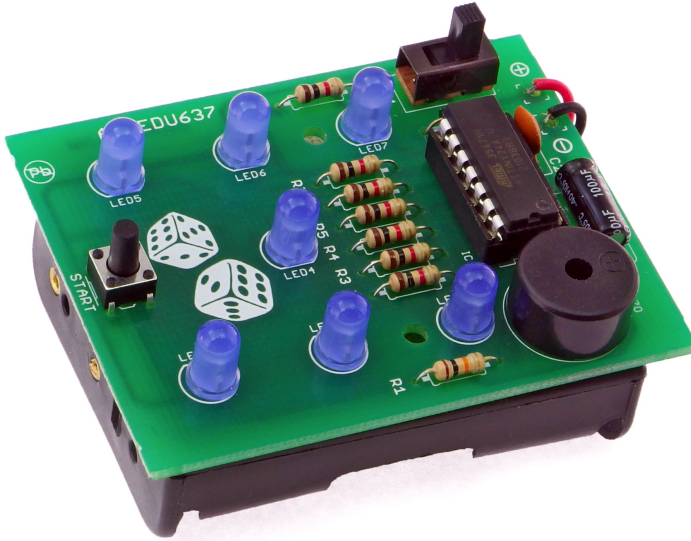


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AVT EDU637



One of a kind electronic version of a cubic dice. The rolled number is displayed by 7 blue LED diodes. Additionally, to make the roll more attractive, the device produces a sound imitating that of a rolling dice. This gadget will definitely make a great addition to playing with children, and an impressive, self-built replacement for a traditional dice in games with friends.

Specifications

- 7 blue LED diodes
- fun drawing animation
- rolling dice sound impression
- power supply: 4,5V [3×AA] - batteries not included)

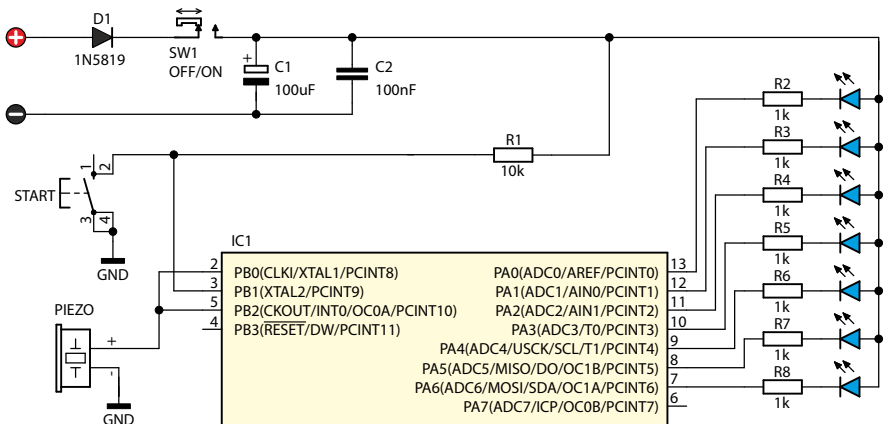


Figure 1. Schematic diagram

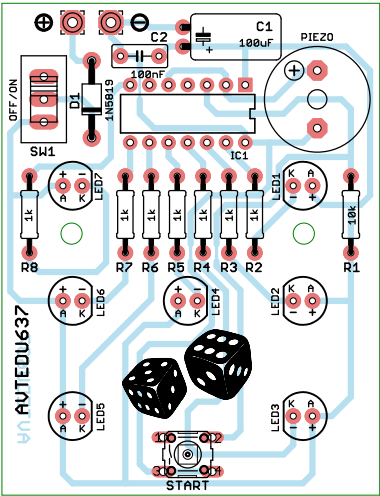
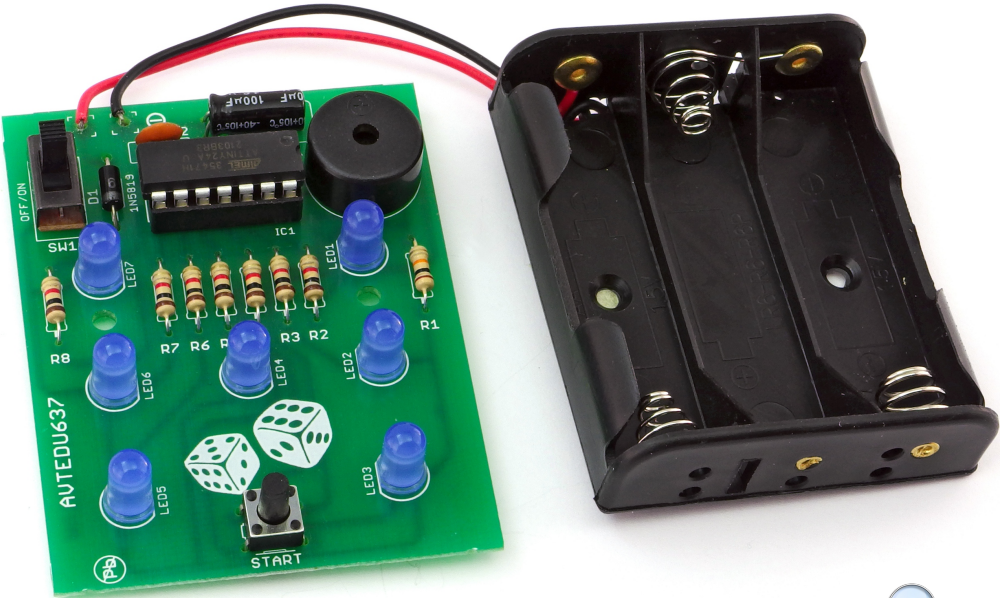
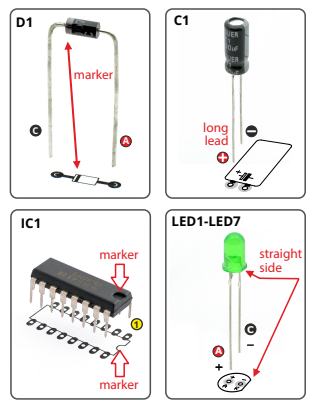


Figure 2. Position of the elements on the printed circuit board



Suggested order of assembly:

- R1:.....10kΩ (black-brown-orange-gold)
- R2-R8:1kΩ (black-brown-red-gold)
- D1:.....1N5819 !
- C1:.....100uF !
- C2:.....100nF
- IC1:.....ATTINY24A + IC socket !
- LED1-LED7:5mm LED diode !
- SW1:.....switch
- PIEZO:piezo speaker !
- battery connector: red-positive , black-negative ⊖

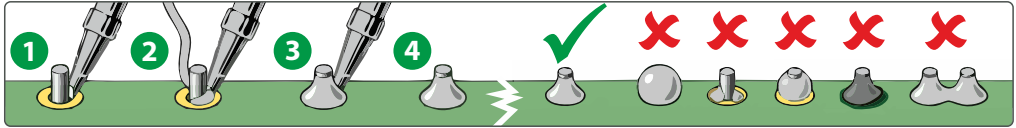


Begin by soldering the elements onto the circuit board in order from smallest to largest.

When assembling the elements marked with "!" pay attention to their polarity and placing of the notch.

You may find the frames with symbols of these elements on the circuit board, as well as photos of the assembled kit helpful.

Assembly instructions




- 1 Touch the tip of the soldering iron to the end of the element near the soldering field
- 2 Next, apply tin solder
- 3 After the cone forms, remove tin solder first, and then the soldering iron
- 4 The whole process should take approx. 2-3 seconds.

The cleanness of the soldered surfaces, right amount of flux in the solder, adequately high temperature (320-360°C), and sufficient amount of solder are necessary to complete a correct bonding.

Too much tin solder can result in forming a ball instead of a cone or joining of two adjacent soldering points.

Inadequate temperature, amount of tin solder or impurities can lead to so called "cold solder joints, i.e. solder and the flux can't moisten the two surfaces and the resulting solder point is fragile and in time will oxidize, break, and stop working.

 Educational Electronics Kits are intended for educational and demonstration purposes only. They are not intended for use in commercial applications. If they are used in such applications the purchaser assumes all responsibility for ensuring compliance with all local laws. In addition, they cannot be used as a part of life support systems, or systems that for use as or as a part of life support systems, or systems that might create a hazardous situation of any kind.

- Failures in modern electronic component are very rare as 95% of non-working kits are due to poor soldering or components placed in the wrong location or orientation so please check your work carefully.

