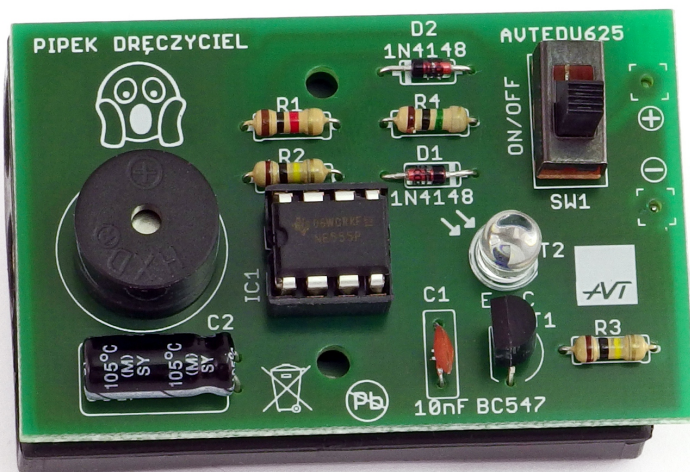


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AVT EDU625



A “spooky” sound generator, perfect for fun games and harassing your friends! **Only for people with a great sense of humour.** Chirpy is possibly the only device designed with the sole purpose of pranking your friends. After years of gruelling experiments, trials and sacrifices we can proudly present The device that the world waited for with bated breath.

Our Chirpy’ s only function is to generate short, squeaky sounds in long time intervals. We also forgot to mention, that the sound is generated only if the device is in complete darkness, but when the lights are on, it’ s quiet as the grave...

Specifications

- sound transducer - buzzer
- built-in twilight sensor
- low power consumption
- power supply : 4,5V [3×AAA] - batteries not included



How to use this epochal invention?

First, we have to find our victim. It has to be a person with a sense of humour, though we have to remember that the real sense of humour is the ability to laugh not only at the expense of others, but also at ourselves. It’ s also advisable, that the “victim” doesn’ t know a thing about electronics. When you find the right person, make them a friendly visit, and using their lack of attention, arm the Chirpy with the SW1 switch. Next, making sure that our host’ s attention is still elsewhere, place

the Chirpy in a brightly lit but difficult to reach space, top of the closet or the inside of the lamp perhaps. After an exuberant goodbye, we return home and turn off our phone, just in case. What about our friend?

At first, when the lights are on, nothing happens. Sooner or later though, our friend will lay down to sleep and turn off the lights. After a few moments, the first squeak will be heard and disregarded. But a few more and our victim will be apprehensive.

Uneasy, they will get up and start searching for the source of the disturbance - with the lights on of course! They will find nothing, and our insidious plot will be additionally helped by the fact that people have trouble with locating the sources of high frequency sounds.

At ease, after not finding anything amiss, our friend will try and go back to sleep. Unsuccessfully of course, because after just a couple of moments the lights will be back on, and the search started again.

This game, with a bit of luck, could last till morning, when the first light of dawn banishes the night terrors away.

With a new set of batteries, our Chirpy can last for a couple of days, which lets us hope that the nightmare returns the next night. And if our friend figures out the source of this prank we'll be left with skulking through the city's sewers just to get around.

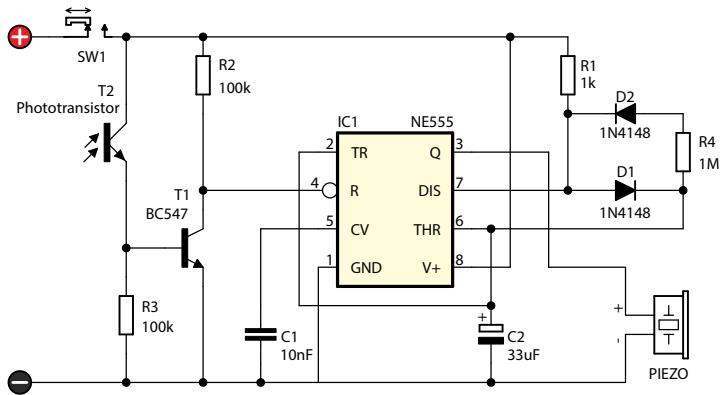


Figure 1. Schematic diagram

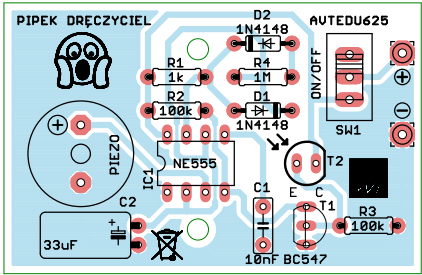


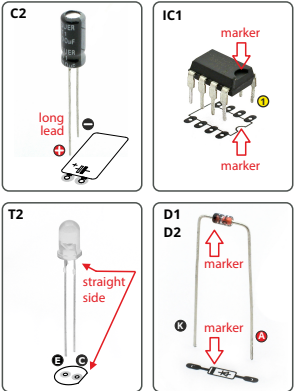
Figure 2. Position of the elements on the printed circuit board

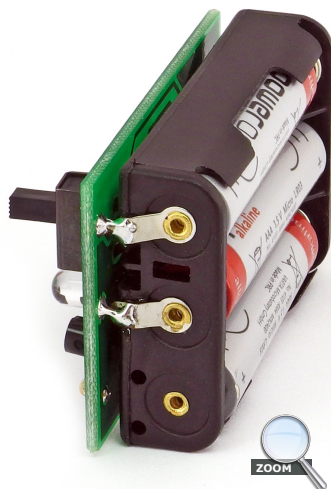
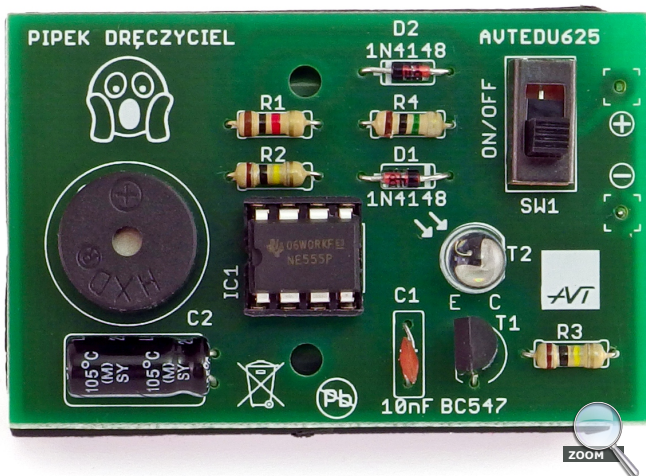
Suggested order of assembly:

- R1:.....1kΩ (black-brown-red-goldy)
- R4:.....1MΩ (brown-black-green-gold)
- R2, R3:.....100kΩ (black-brown-yellow-gold)
- D1, D2:.....1N4148 !
- IC1:..... NE555 + IC socket!
- C1:.....10nF
- C2:.....33uF !
- T1:BC547 or similar !
- T2:phototransistor !
- PIEZO:piezo speaker !
- SW1:switch

Battery socket

Join battery socket to the circuit board with the help of the cut-off resistor wires



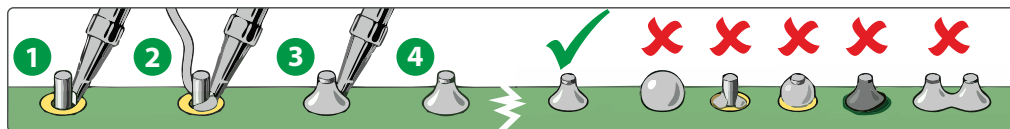


! Begin by soldering the elements onto the circuit board in order from smallest to largest.

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.

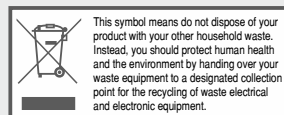
The cleanness of the soldered surfaces, right amount of flux in the solder, adequately high temperature (320-360°C), and sufficient amount of solder are necessary to complete a correct bonding.

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.



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