

# EE Practical Applications I - Project 04 Toy organ

#	Student ID	Student Name	Grade (10)
1			

Delivery Date	
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١. يتم تسليم المشروع في خلال أسبوعين من تاريخ عرضة، و يتم حذف درجتان و نصف من المشروع عن كل أسبوع تأخير ٢. يتم تسليم المشروع لمعيد المقرر مباشرة
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## Objective

To build a functional prototype of simple toy organ circuits that produces 5 different sounds.

## Theory

This circuit produces a tone according to the button being pressed.

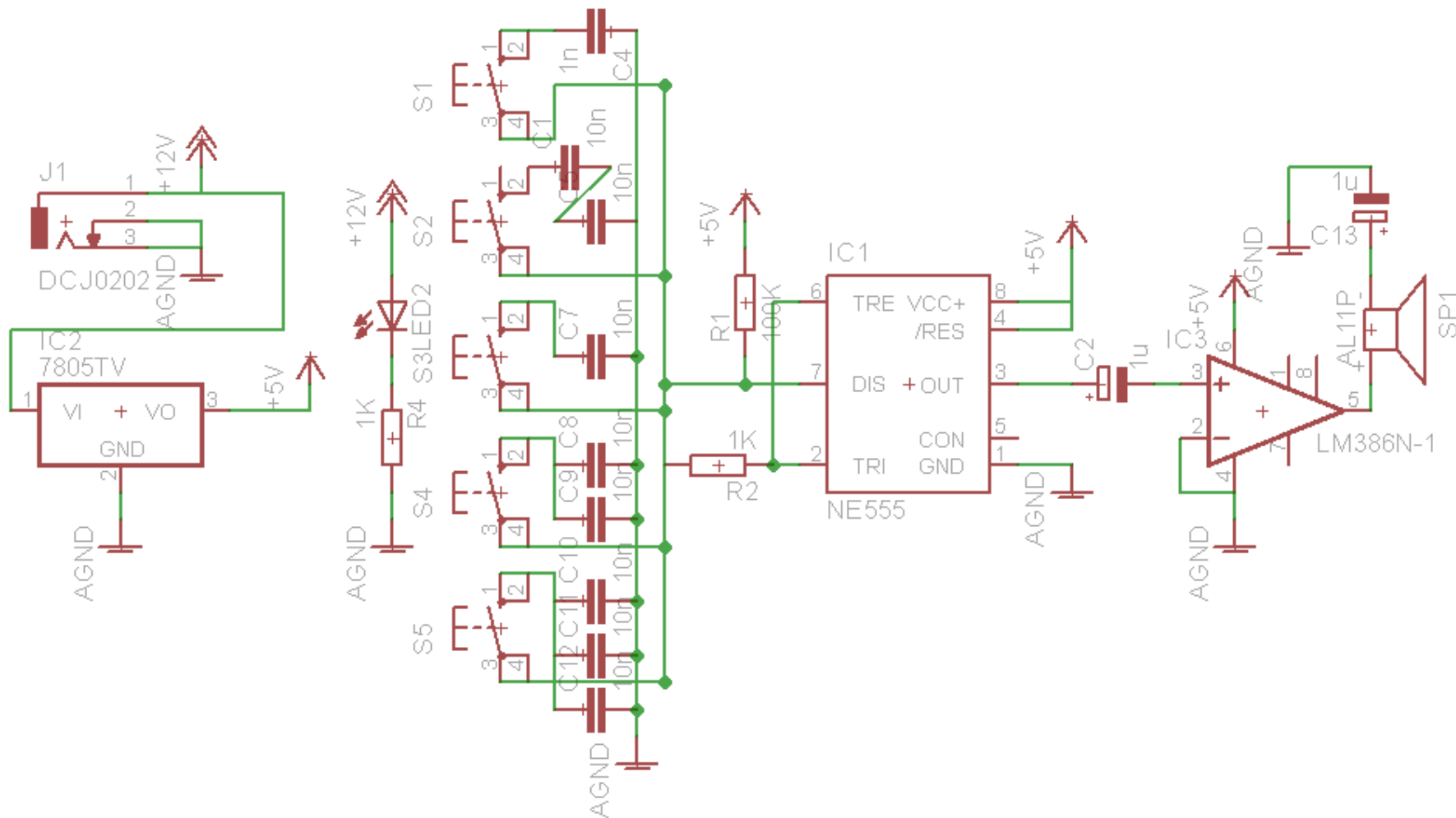
Only 1 button can be pressed at a time, that's why it is called a monophonic organ.

Main heart of this circuit is 555timer IC. The 555 timer is operated in astable multivibrator mode.

In astable multivibrator mode, the circuit produces accurate free running waveforms, which can be adjusted.



### Schematic



## Components list

#	item	link	Quantity
1	DC Power 2.1mm Connector on PCB	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=1203">http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=1203</a>	1
2	L7805CV "Positive Voltage Regulator 5V"	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=635">http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=635</a>	1
3	1 K resistor	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?cPath=31_46_69&amp;products_id=342">http://ram-e-shop.com/oscmax/catalog/product_info.php?cPath=31_46_69&amp;products_id=342</a>	10
4	100 ohm resistor	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=313">http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=313</a>	10
5	100 K resistor	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=383">http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=383</a>	10
6	10 K resistor	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=362">http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=362</a>	10
.7	led	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?cPath=60&amp;products_id=228">http://ram-e-shop.com/oscmax/catalog/product_info.php?cPath=60&amp;products_id=228</a>	1
8	IC 555	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=609">http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=609</a>	1
9	Very Flat Small Speaker, 8 Ohm , 0.25W - 20mm	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=1434">http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=1434</a>	1



10	press	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=2714">http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=2714</a>	5
11	Capacitor 1uF 50v	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=476">http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=476</a>	2
12	LM386	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=602">http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=602</a>	
13	Capacitor 0.01uF 50v (10nf 50v - code PF103)	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=1309">http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=1309</a>	7
14	Capacitor 0.001uF 50v (1nf 50v - code PF102)	<a href="http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=545">http://ram-e-shop.com/oscmax/catalog/product_info.php?products_id=545</a>	1

