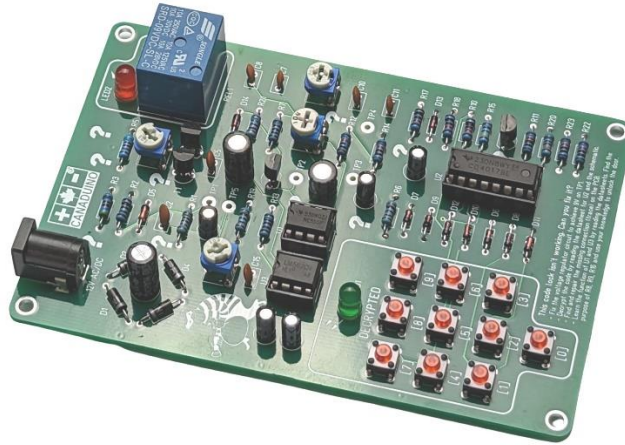


Education and Troubleshooting Project “The broken code lock”



This is a DIY soldering kit especially developed for technology/electronic students and to build basic skills for electronic beginners.

The module requires 12V AC or DC input voltage (standard 2.1/5.5mm barrel connector).

When you finished assembling the kit following the schematic, you must adjust R4 to achieve a voltage of 9V on TP1. Not possible? Find out why and fix it using the spare parts in the bag.

After adjusting the voltage, you need to decrypt the code. To do so, you need to know about the working principle of the CD4017. After entering the code, the LED “decrypted” will notify you about your success.

Hint: The code number is connected to Canadian history.

The next step requires knowledge about the function of the other two ICs. The LED “unlocked” will show your success.

Hint: There is also problem with the PCB layout that needs to be fixed.

Depending on your skill level and experience, you can finish the entire project within 1 hour (great skills) or 1 day (novice).

Datasheets required for the project (downloads on www.canaduino.com):

LM567 Tone Decoder

NE555 Precision Timer

CD4017 Decade Counter

