



Multivibrator

E-mail : patkitsrus@gmail.com

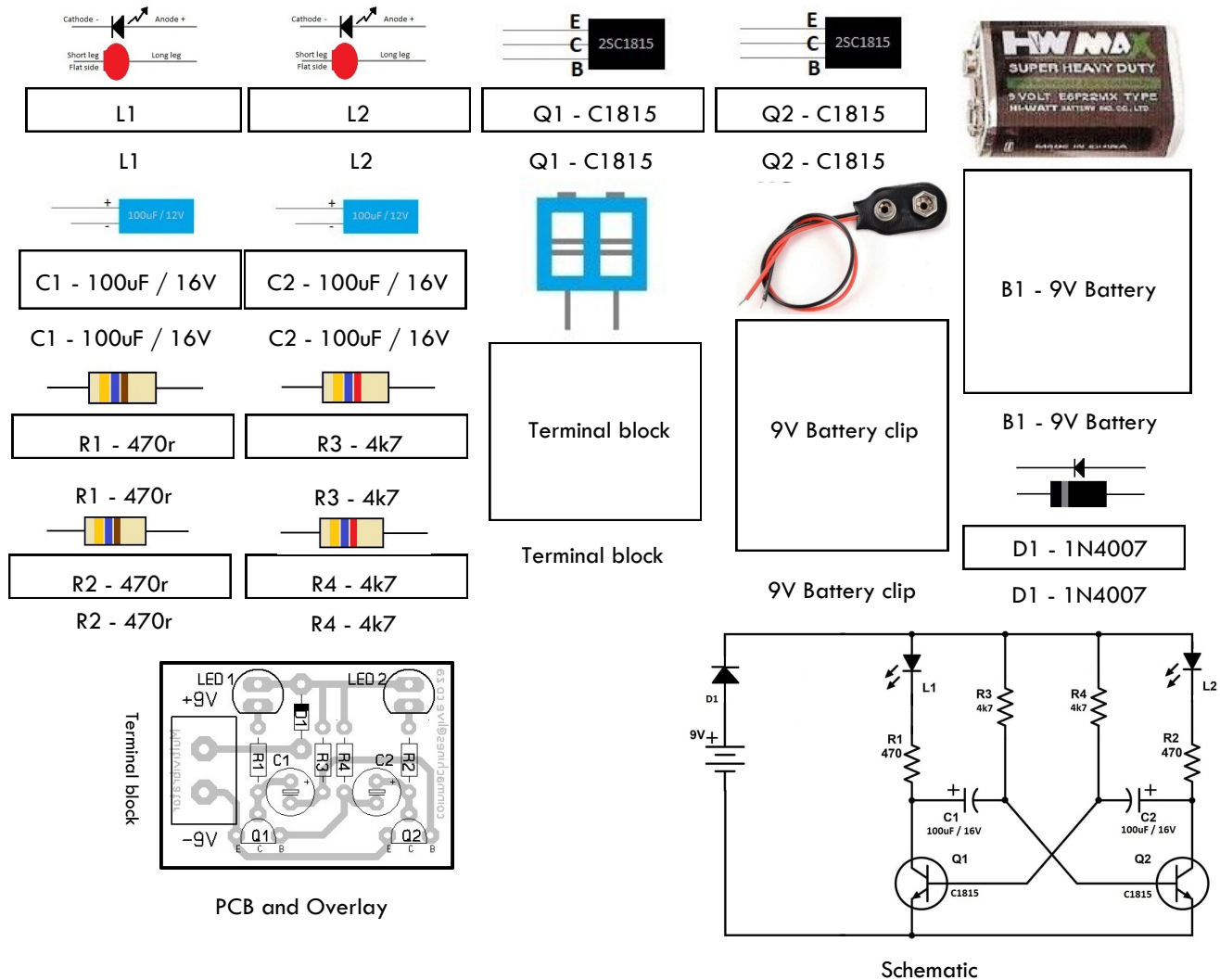
Cell / Whatsapp : 071-133-0639

90 Adam Tas Avenue, Bothasig, 7441

PATKITS-R-US

Supplying School Technology
Projects Since 2020

Order Now - STEM Learning Kits Today!
+27 71 133 0639



Assembly

Insert all of the components with the exception of the battery and battery clip on the pcb as indicated on the overlay. Use a 40 - 60 Watt pencil point soldering iron. Make sure the tip of the iron is bright and shiny. A dirty tip will not work. Soldering is as much an art as it is a science. Connect the battery clip to the terminal block (Red +9V and black -9V) The four resistors can go in any way round, but the capacitors, diode, led and transistors are polarity conscious. Carefully recheck your soldering for bridged or poor connection before connecting the battery to the battery clip. Enjoy!

Operation

On powerup both transistors Q1 & Q2 will try to switch on simultaneously via biasing resistors R3 & R4. Due to manufacturing tolerance differences one will switch on first. Let us assume it is Q1. C1 will now start charging via R3 further depriving Q2 of base current and keeping it off. Once C1 is fully charged base current can now flow to Q2 via R3 thus switching it. Q2 will now start charging C2 robbing Q1 of base current and switching it off. The whole process then repeats itself. The oscillating frequency is dependent on the R/C constant of C1/R3 and C2/R4.