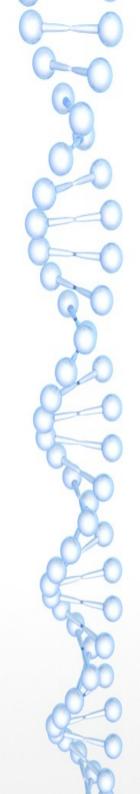


Control Dc - Motor

University Of Engineer Of Engineer



Made by:

Mostafa Elsayed Gohary Islam Mamdouh Khalil

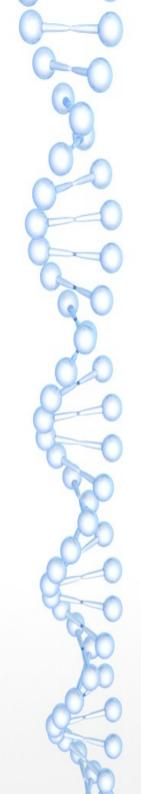
Supervision by:

DR:Ahmed Anany

alenany102@gmail.com

Eng:Hamdy Soltan

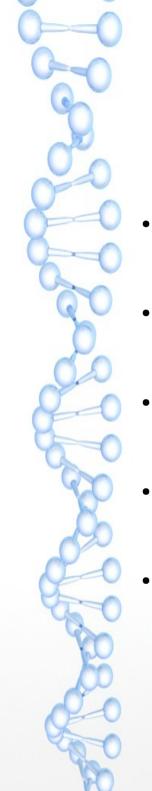
hamdy.engineer@yahoo.com



The purpose:

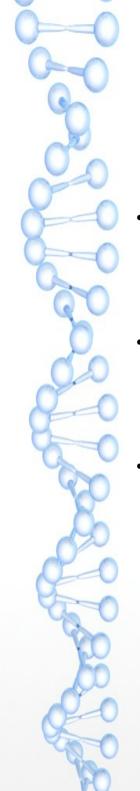
1- control the direction of dc motor

2- control the speed



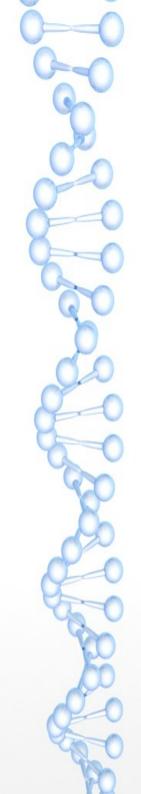
Components:

- DC-motor
- · 4 resistors 2k
- · 4 transistors 2n2222
- · 2 potentiometer
- Battery 9V



Idea work:

- we control in the direction of dc motor by use H bridge using 4 transistors.
- and the we use two potentialmeter R5 and R6 to control in the speed.
- When change the value of R5 and R6 we allow the the current to follow in direction and not follow in the anther direction according this Cases:

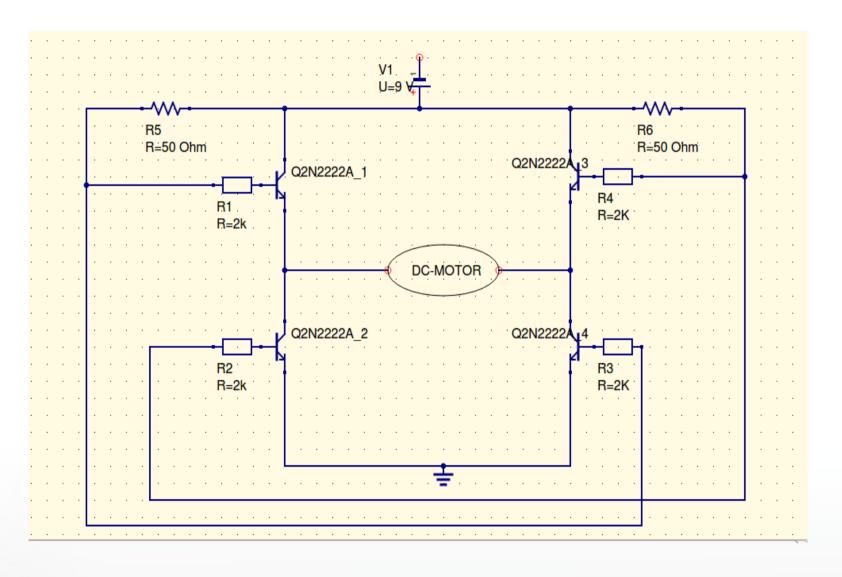


Example:

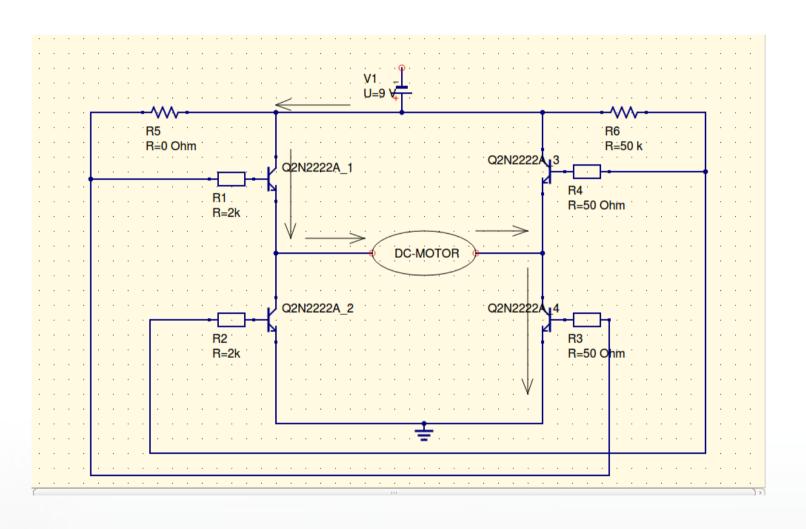
When **R5** increase then the voltage across It become high

Then the volt across **transistor 1** less than **0.7** And become **open** switch and the current pass Throw anther direction

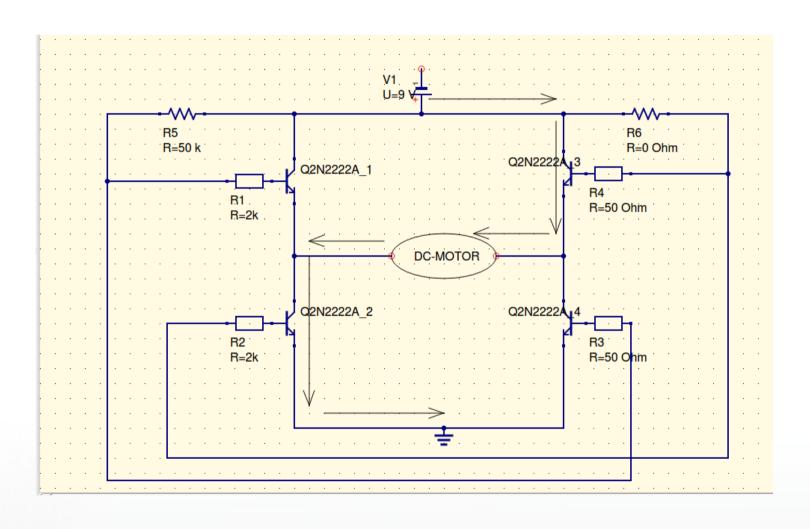
Connection

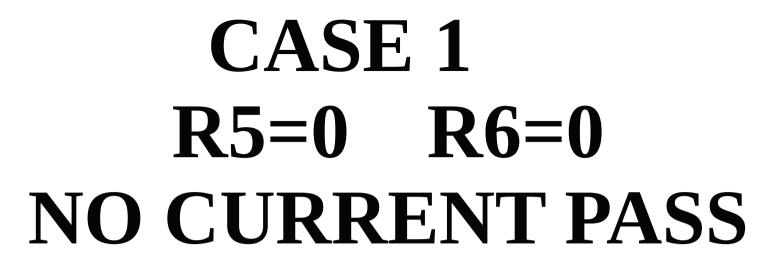


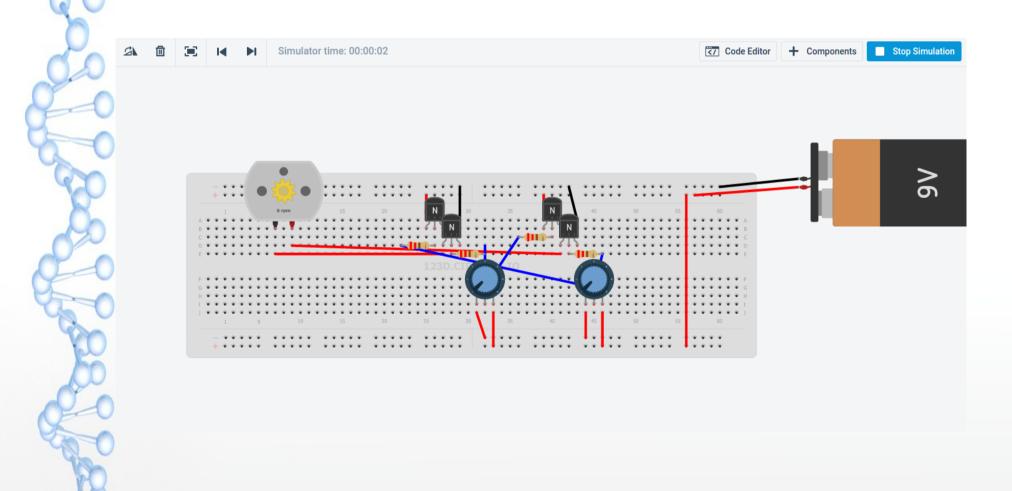
Direction 1

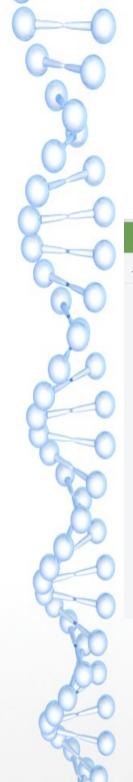


Direction 2

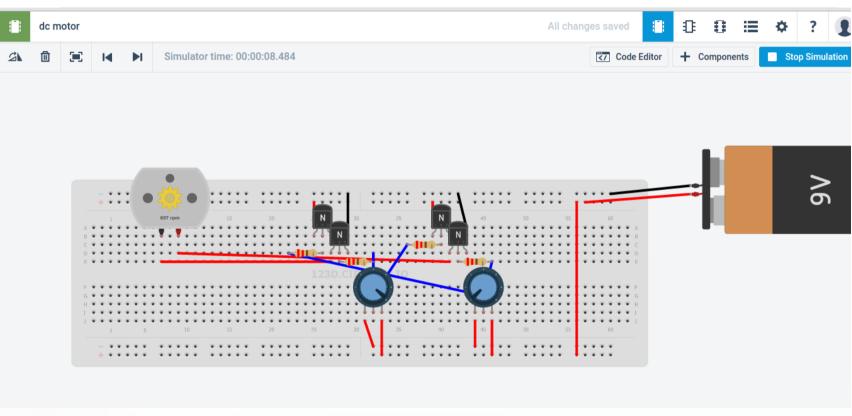




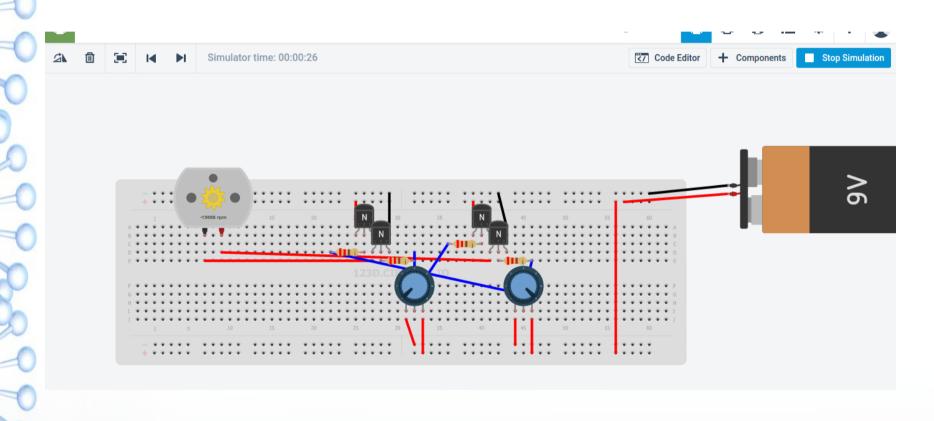




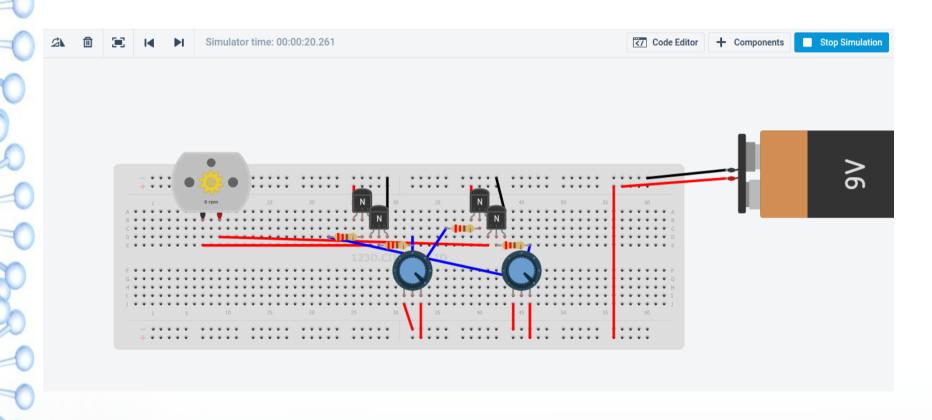
CASE 2 R5=value R6=0

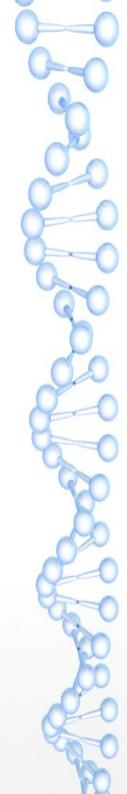


CASE 3 R5=0 R6=value



CASE 4 R5=value R6=value





photos





