

Experiment 5

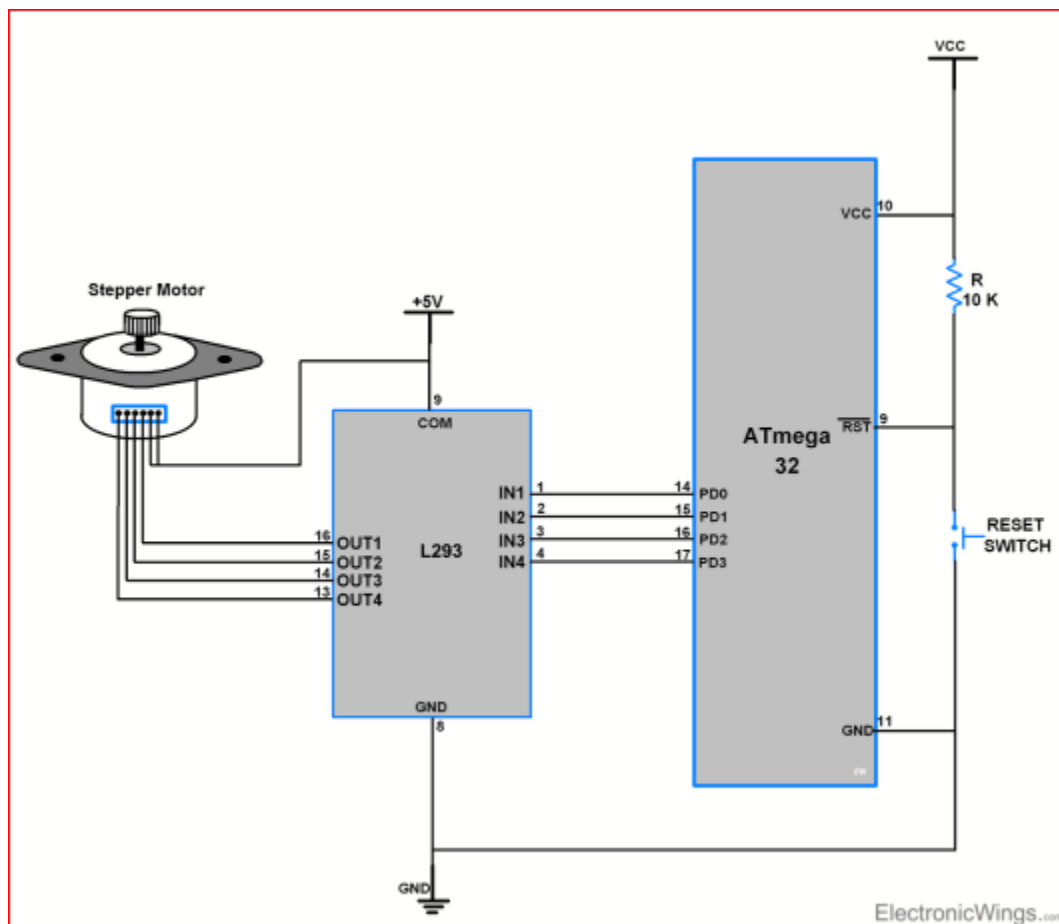
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Question 1 – part one

Control Stepper motor with push button connect to PORTC2

For control stepper motor we need L293 driver, like below circuit:



Note: Proteus can't handle 0.5ms stepper motor so changed it to 0.5s.

For handle 0.5s with we need to configure timer 0 like this:

- Timer = Timer0
 - Prescaler = 256
 - Overflows = 61
 - Reminder = 9
 - This timer should count every 0.5s

Note2: Result video of project attached in directory.

References:

- [Avr Atmega Stepper Motor Interfacing With Atmega32 | Avr Atmega](#)
- <https://www.electroschematics.com/l293d-datasheet/>

Question 1 – part two

Control rotate direction of Stepper motor with push button

Default directions are counter clockwise and when the user clicks it changes to clockwise.

Note2: Result video of project attached in directory.

Question 1 – part three

Control rotate direction of Stepper motor automatically

The Rotated direction of stepper motor changes automatically when it has fully rotated.

Note2: Result video of project attached in directory.