

# Chapter 8

## Digital and Analog Interfacing Methods

# Lesson 9 Part e

## Stepper Motor Interface

# Stepper Motor Interface

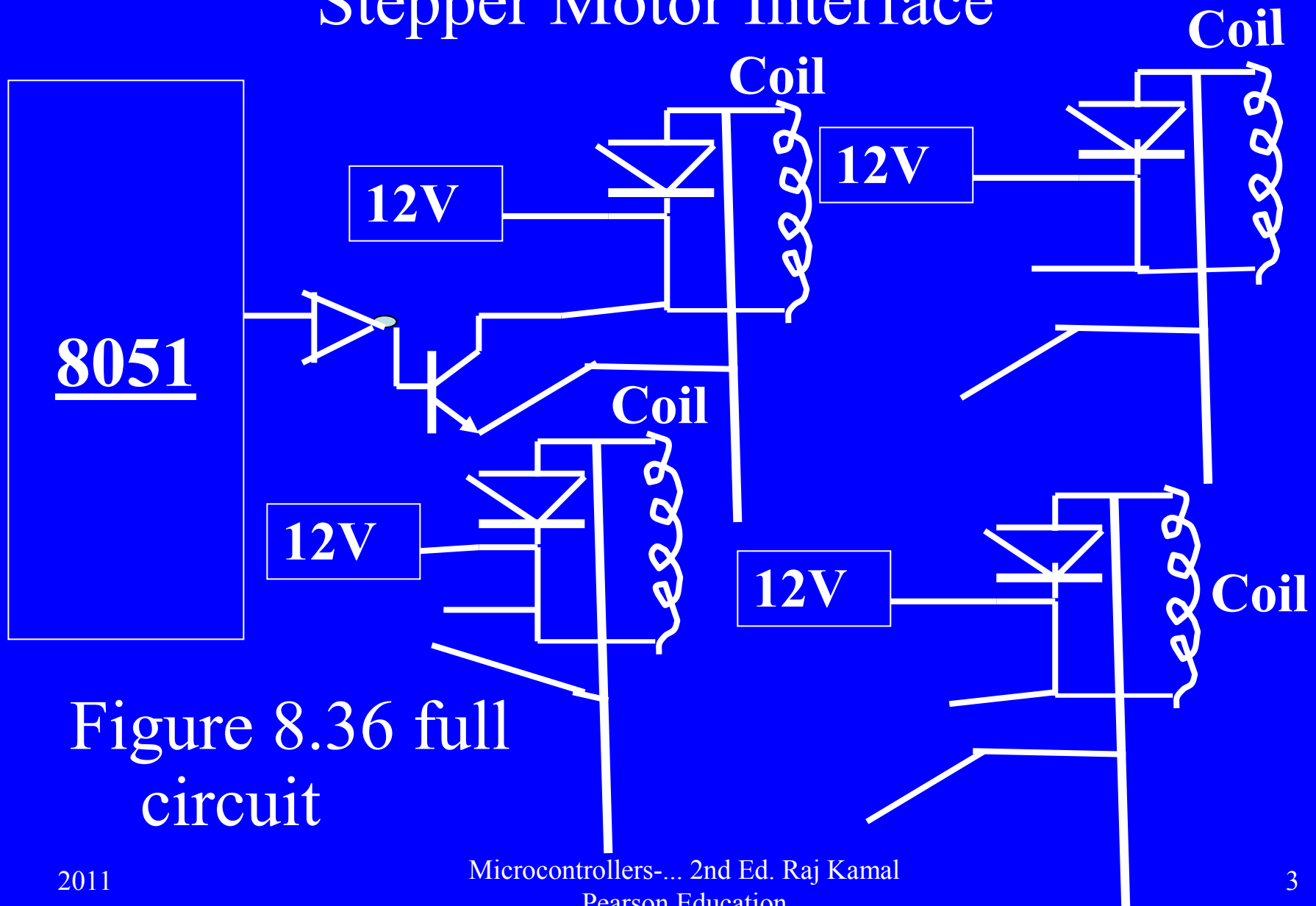


Figure 8.36 full circuit

# Stepper Motor(s) Applications

- Printer
- Drive
- Robot

# Stepper Motor

- one step- A motor step angle example-  
1.8°
- half step at an instance
-

# Four Pole Stepper Motor

- Four Coils A, B, C and D, cyclically fed current for one steps at a time rotation
- Pair of Coils cyclically fed current for one steps at a time rotation

# Stepper Motor Mode 1

- A, B, C, and D given the current cyclically at the successive instances T0, T1, T2,....to rotate in one direction
- *Programming Example 8.10*

## Stepper Motor Mode 2

- Stepper Coils A, B, C, and D given the current cyclically at the successive instances T0, T1, T2,....to rotate in another direction
- *Programming Example 8.10*



# Four Stepper Motors Circuit

- Refer Figure 8.37

# Summary

We learnt

## Stepper Motor

- Four Coils, each coil interfaces to a port bit

**End of Lesson 9 Part e**

**Stepper Motor Interface**

THANK YOU

# Lesson 1

## Key, keypad and keyboard