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

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Stepper Motor

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

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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*

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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

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Summary

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We learnt

Stepper Motor

- Four Coils, each coil interfaces to a port bit

End of Lesson 9 Part e

Stepper Motor Interface

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THANK YOU

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Lesson 1

Key, keypad and keyboard

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