Chapter 8

Digital and Analog Interfacing Methods

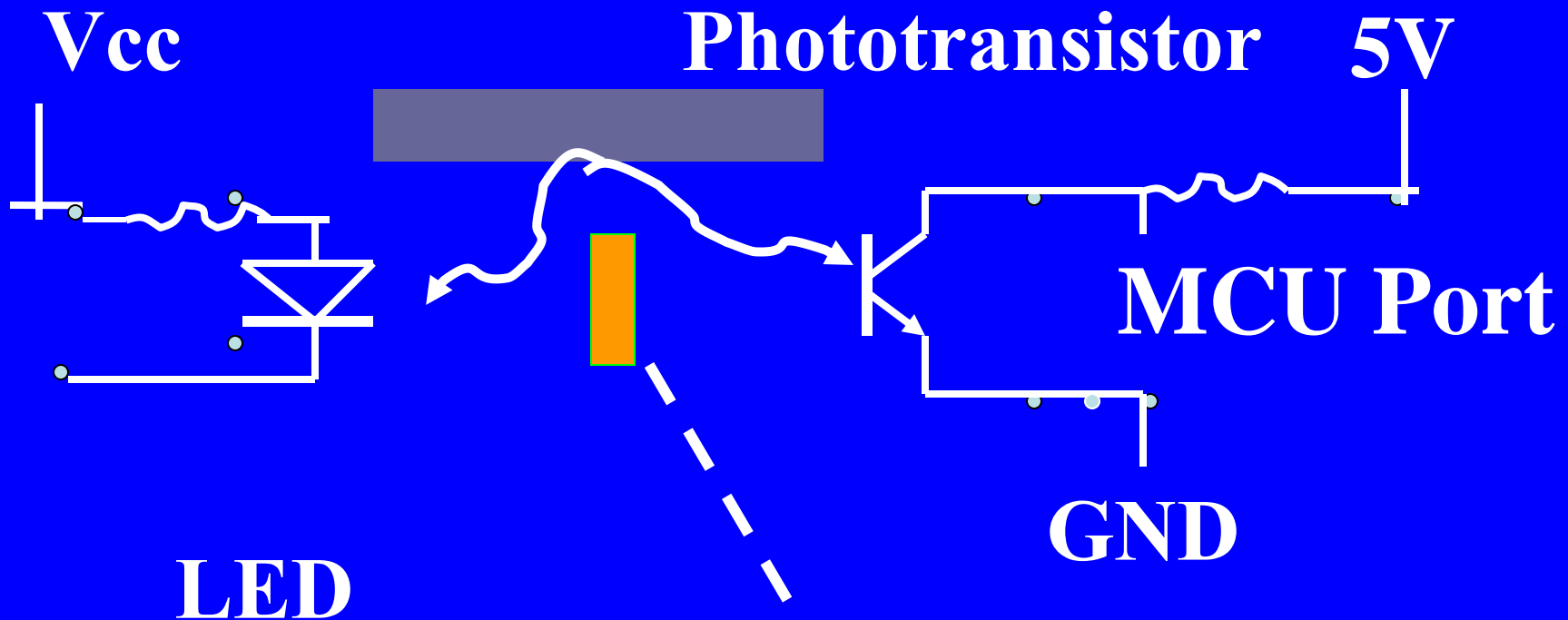# Lesson 14 Part d

Optical Obstacle Proximity Sensors

Optical Obstacle Proximity Sensor

- Position index hole sensing

- Wall or obstacle sensing

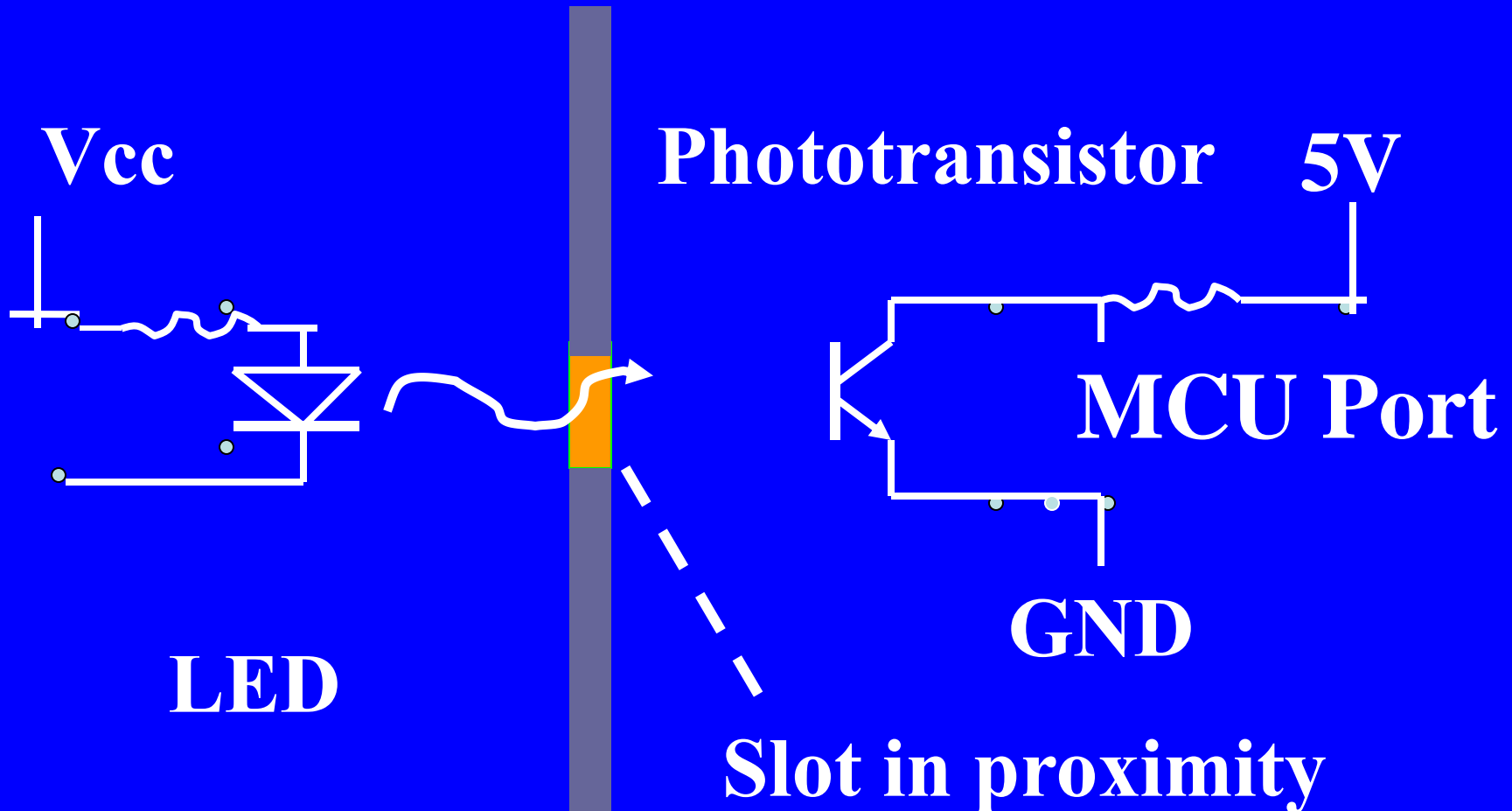# Position Proximity Sensors

- Motion detection (i) for a moving wind cup in a wind-velocity instrument by a rotating object chopping the optical path

- Finding the motor rpm by a rotating object chopping the optical path on each revolution

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Optical Wall proximity sensor Circuit

Vcc   **Phototransistor**   **5V**

MCU Port

GND

LED

Obstacle to cut direct beam

Optical Proximity sensor Circuit

Vcc   **Phototransistor**   **5V**

MCU Port

LED

GND

Slot in proximity

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Summary

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We learnt

- Optical sensor uses a pair of LED and phototransistors to sense a light slot in proximity

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End of Lesson 14 Part d

Optical Obstacle Proximity Sensors

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