Project Suggestions

55:036
Embedded Systems and System Software

• IR Communications/Object Detection
  – e.g. using an IR LED and PNA4602M Detector
• RF Communications
  – e.g. using TWS-434A/RWS-434A RF Modules
• Control of Relays
  – e.g. using ULN2803 peripheral driver
Project Suggestions--Continued

• Closed loop control—
  – e.g. stepper motor control
  – temperature control, etc.
  – Will talk about simple PID control next week in class
• Use of an embedded Real-time Operating System
  – e.g. FreeRTOS
• A low-power design application

Project Suggestions--Continued

• Use of a peripheral device with 1-wire interface
  – www.maxim-ic.com/
• Other sources of intelligent peripheral chips:
  – Texas Instruments
    • www.ti.com
  – National Semiconductor
    • www.national.com