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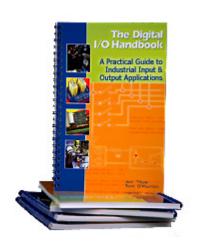


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#### **Chapter 1 - Logic Principles**

- Introduction to digital electronics
- Current Sinks and sources
- Buffers and drivers
- Latches
- Negative and positive logic
- All in the family

#### **Chapter 2 - Digital Outputs**

- Introduction to output ports
- Simple on/off control
- Using drivers and buffers

- Relay basics
- Relays handle more power
- Optical isolation
- Solid state relays
- Control bits and bytes with software

# **Chapter 3 - Digital Inputs**

- Introduction to input ports
- Basic TTL inputs
- Circuit isolation
- Current sinks and sources
- LED considerations
- Monitor high voltages
- Sense bits with software
- Flags
- Put it all together
- A final note about I/O ports

# **Chapter 4 - Sensor Interfacing**

• Example 1: Thermal switch

- Example 2: Level switch
- Example 3: Hall-effect proximity switch
- Example 4: Photoelectric sensor
- Example 5: Shaft encoder
- Example 6: Output more than 8 bits

# **Appendix**

• Switch and Relay Configurations

#### **Glossary**

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