

Message Wheel

C. H. Ting

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SVFIG



Summary

- Message Wheel
- Arduino Uno Board
- Message Wheel 328 Board
- MessageWheel Sketch
- Conclusion



Message Wheel

- 8 LEDs mounted on a wheel
- Visual persistence
- ATmega328 Board for Message Wheel
- Hall effect sensor for timing
- Messages selected by wheel speed
- Demo



Arduino Uno Board

- Open hardware design
- ATmega328 Microcontroller
- USB host interface
- Arduino 0022 environment
- Sketches
- Shields



Message Wheel 328 Board

- Single ATmega328 microcontroller
- 9 LEDs
- 16 MHz ceramic oscillator
- Reset switch
- Hall Effect Sensor
- 2 AA battery power supply



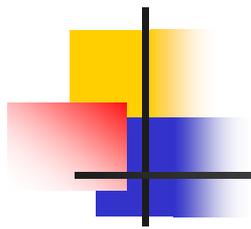
MessageWheel Sketch

- ASCII character table
- Output to LEDs
- Input from Hall effect sensor
- UART for debugging
- Startup
- Loop
- Compile and download

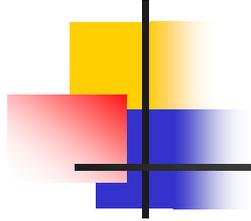


Conclusion

- ATmega328 microcontroller is a true single chip solution to many embedded applications.
- Arduino sketch captures the essence of embedded system programming.
- Forth community has lots to learn from this open hardware system.



Questions?



Thank you.