

Electronic Pong

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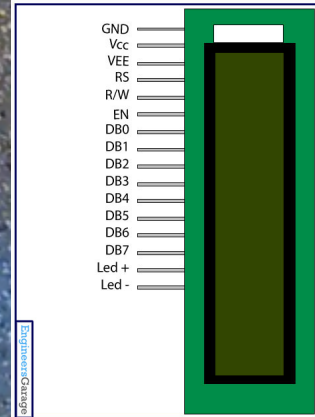
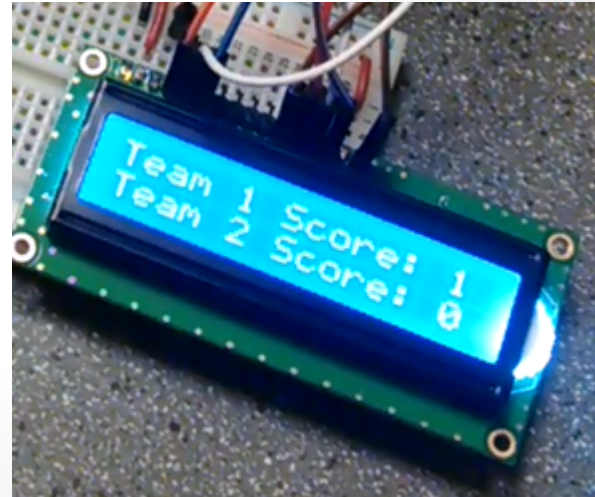
Buzzer

- Piezo Buzzer Part Number: PKM13EPYH4002-B0
- Hardware interface of component: Solder pins
- How to address it from software
 - a. IO port (1 pin)
 - b. change pitch with pulse width modulation
- Progress with component
 - a. Tested and verified
- Challenges
 - a. Might not be loud enough
 - b. Where/How to mount it



LCD

- 16x2 LCD
- Hardware interface of component: 16 pins with various functions
- How to address it from software
 - a. IO ports (4 pins)
 - b. Register Select (P2.7)
 - c. Enable (P4.2)
- Progress with Component
 - a. Working
- Challenges
 - a. Faulty Wiring



Photodiodes

- IR Photodiodes chosen were TCRT 5000L
- These physically interface with the main unit via 4 leads (2 ground, 2 data)
- The photodiodes interface with the software via a data input pin which have been connected to a 5 volt power supply input on the MSP430 for purposes of testing
- Progress: Installed and tested using “fake” cup. Initial testing was successful
- Challenges: Further scaling up to six cups, and further testing to insure adequate sensitivity



LEDs

- Bright Green; Standard size - T1 $\frac{3}{4}$ 5mm, 12,000mcd brightness, 3.4V forward drop, Max current 20mA, 560 Ohm Resistors
 - Hardware interface of component 1 pin
 - IO ports (1 pin)
 - Progress with component
- Received and Functioning
- How to fit all the components in a compact setting, LED functions



Project Status

- Jeff - Software
- Steve/Manzir - Cup
- Scott - Mounting Board
- Overall progress: All parts are functioning. Simple integration complete. Need to expand to six cups and figure out mounting scheme. Create game modes if time permits.

