Motion Detector Sensor Alarm (M.D.S.A.)

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Outline

- Component Status
  - Keypad
  - LCD
  - Motion Sensor
  - Speaker
- Overall Project Status

Keypad Status

Hardware

- 10K Ohm pull down resistors on columns
- P2.2, P2.3, and P2.4 used for columns
- P1.2, P1.3, P1.4, P1.5 used for rows

Software

- P2.2, P2.3, P2.4 ports(columns) set as interrupts
- Key Scanning
- Key decoding
- Key debouncing

Status

- ✓ **Order– Complete**
- ✓ **Acquire– Complete**
- ✓ **Test – Complete**
- Integration – In Progress
  - With LCD - 90% Complete

Impediments

- No impediments at this time

LCD Status

Hardware

- 4 data pins in use
  - P6.0, P6.1, P6.2, P6.3
- Contrast adjustment (1k to GND)

Software

- Found open source libraries to provide
  - Initialization of LCD
  - Functions to read, write, and clear screen

Status

- ✓ **Order– Complete**
- ✓ **Acquire– Complete**
- ✓ **Test – Complete**
- Integration – In Progress
  - With Keypad - 90% Complete

Impediments

- No impediments at this time

Motion Sensor Status

Hardware

- Built-in pull-up resistor
- P2.5 used
- Jumper wire
  - Needed 3.3v use

Software

- Port P2.5 set as interrupt
- Tested with LED

Status

- ✓ **Order– Complete**
- ✓ **Acquire– Complete**
- ✓ **Test – Complete**
- Integration – In Progress

Impediments

- Need SMD soldering equipment to solder a jumper wire in order to use 3.3V power supply

Speaker Status

Hardware

- P3.5 used
- Transistor
  - Make speaker louder
- 10 ohm resistor
- Timer A2 channel 0
  - Generated PWM wave form

Software

- Generated a sound signal using a Timer A2 channel0

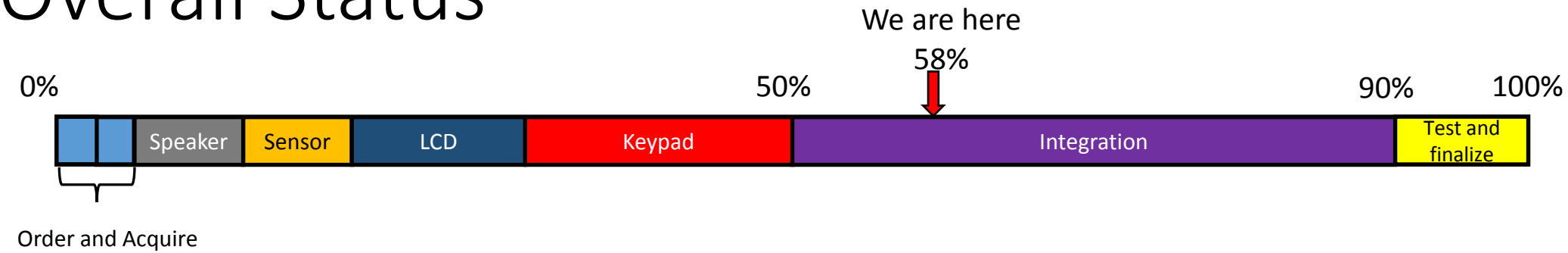
Status

- ✓ **Order– Complete**
- ✓ **Acquire– Complete**
- ✓ **Test – Complete**
- Integration – In Progress

Impediments

- No impediments at this time

Overall Status



TO-DO:

- Begin integration of the speaker and motion sensor
- Nail down the details:
  - LED blinks
  - Arming/Disarming
  - LCD messages
  - PIN storage logic
- Order PCB
- Final product design

Status:

- Integrating!