

ECGR6185 - 4/26/10 Notes ①
Watch System Requirements

- 1) The watch will have a 1" by 1" LCD with the main row of characters being 1/2" tall.
- 2) The watch will have 3 buttons.
- 3) The watch will use an MSP430 microcontroller with an on-board ADC.
- 4) The watch will have a device (i.e. accelerometer) to measure user steps.
- 5) The watch will have an audible beep for user feedback.
- 6) The watch will be powered by solar power, with a back-up battery.
- 7) The LCD display shall be back-lit.
- 8) The watch should be a 24-hour clock.

Requirements (Cont)

- 9) The watch will accurately measure steps while the user is wearing the watch on her/his wrist, with 85% of the actual steps identified and only 15% false measurement.
- 10) Switches will be used to toggle between modes, increment/change settings, and turn on the backlight.
- 11) The watch will run in normal watch mode, time set mode, step-reporting mode, stopwatch mode, and alarm mode.
- 12) The user should be able to replace the battery without special tools.
- 13) The watch shall be water-resistant, not waterproof.
- 14) The watch shall automatically adjust to Daylight Savings time.
- 15) The watch shall be accurate to 10 second per year.

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* Requirements

* Performance

* Feature/functionality

* Customer

* Internal

* Cost

* Time



Test
The
success of
Product
Development

(3)

Exam 2 →

* Readings → S

* Requirements

* Spec Sheets → u controller → Revesas

* State Machine