

MSD Project Reviews

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Project Review Objectives

- *Formally* assess project status and communicate to Senior Mgt (usually at the end of each Phase: e.g. a *Phase Gate Review*)
 - State of design
 - Schedule
 - Budget
 - Conformance to product development process
- Confirm project consistent with *current* company priorities
- Documentation to comply with Product Development Process and support Design History File
- Project reviews are not:
 - Technical design reviews
 - A review of *all* activities that have occurred during product development

Proposed Project Review Structure

- Title Slide: Project title, Team members / roles, Sponsor
- Project Description / High Level Customer Needs / Eng Specs
- Concept Description and Rationale (MSD I)
Concept Summary (MSD II)
- System Architecture
- High Risk Assessment (MSD I)
Design Summary (MSD II)
- Current State of Design: performance/budget/schedule (MSD I)
System Testing Results (MSD II)
- Milestone Schedule for next quarter (MSD I)
Objective Project Evaluation: Success and Failure (MSD II)

Student Presentations

- Two teams present for 2 minutes each
 - Title Slide: Project Title, Team members and Sponsor
 - Project Description / High level customer needs
 - Selected concept
- 3 minute critique by guides and class

Do not attempt to cover your entire presentation in 2 minutes!
Proceed at your normal pace.

P08907: Portable Beverage Opening Device with Integrated BAC Monitoring

Dr. B.R. Bellie

Project Manager

B.D. Weiser

Marketing

H.N. Kinn

Test Engineer

M.K. Lobe

Mechanical Engineer

S. Adams

Electrical Engineer

Sponsor: Anheuser-Busch

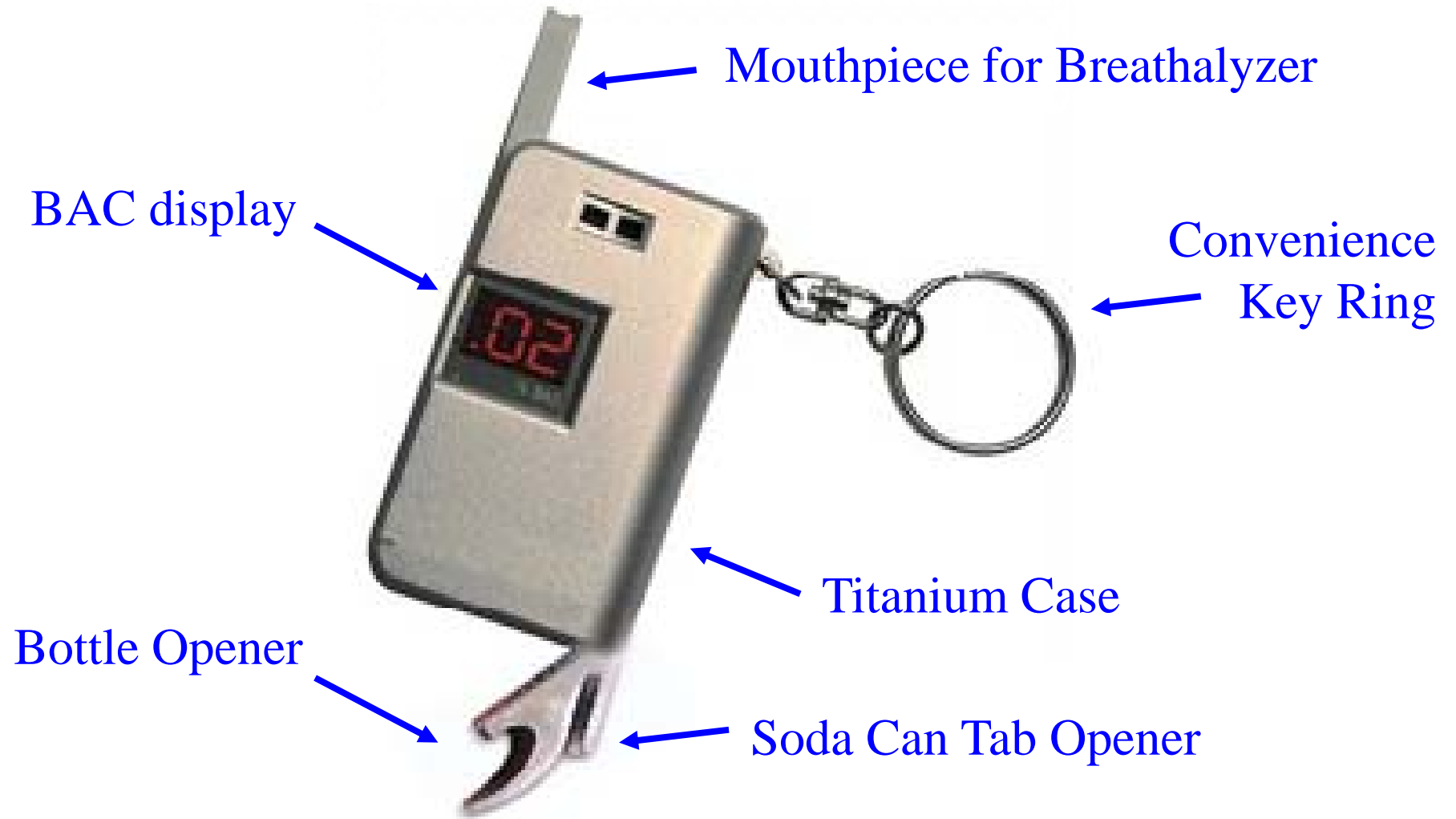


Note: This is a hypothetical project and is not sponsored nor endorsed by Anheuser-Busch

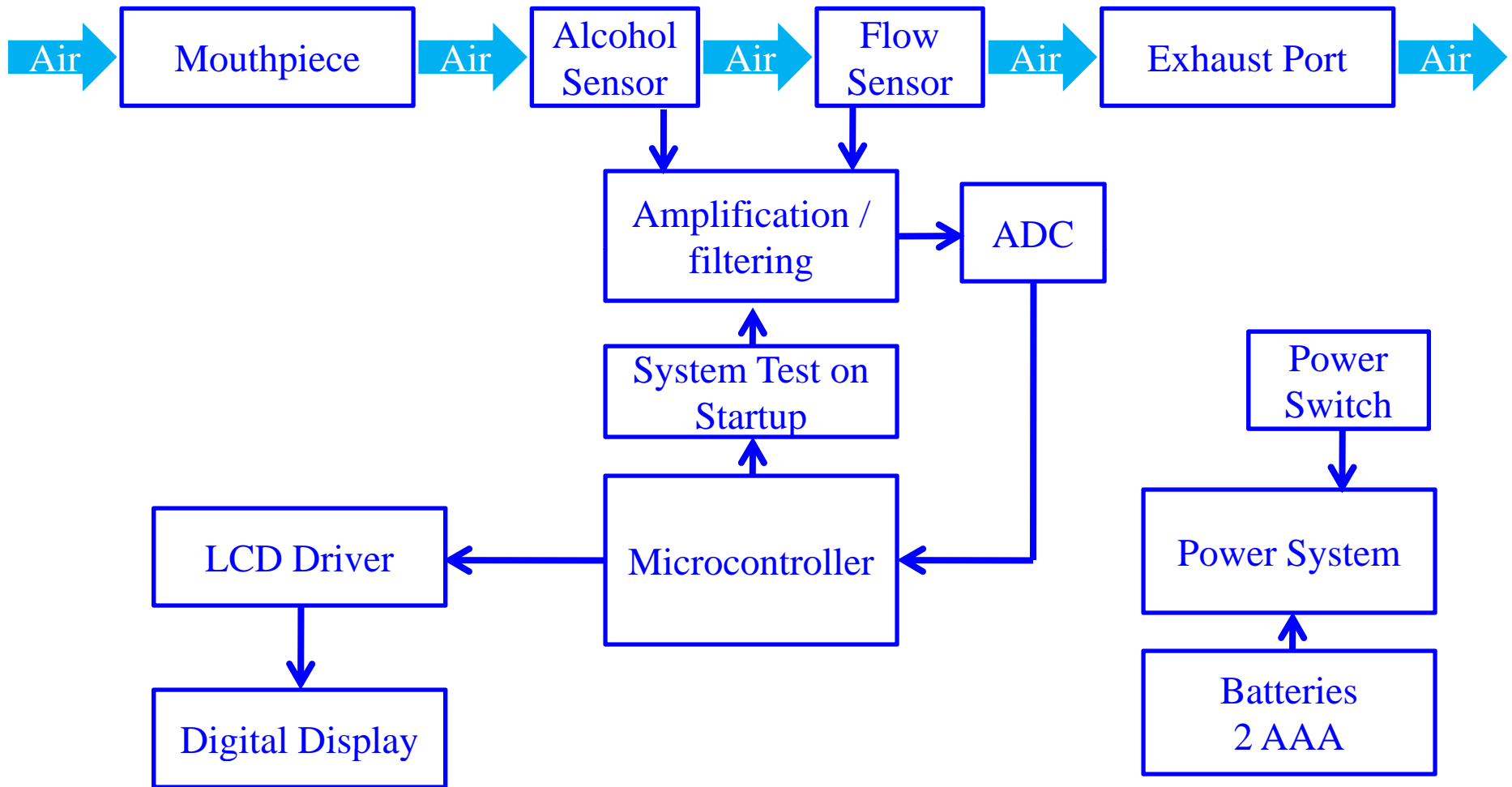
Project Description

- Device to open bottle beverage containers
- Market: Males age 21-32
- Key high level customer needs / engineering specs:
 - Portable (carry in pocket) Size < 8cm x 3cm x 1cm
Weight < 3 oz
Batteries for 100 tests
Drop of at least 2 meters
 - Universal (beer or EANABs) Caps from 2.5-3cm O.D.
Soda can tab lifter
 - Built in breathalyzer Range: 0.500 % BAC
Resolution: ± 0.01 % BAC
 - No training required Digital display

Design Concept



System Architecture



Technical Risk Assessment

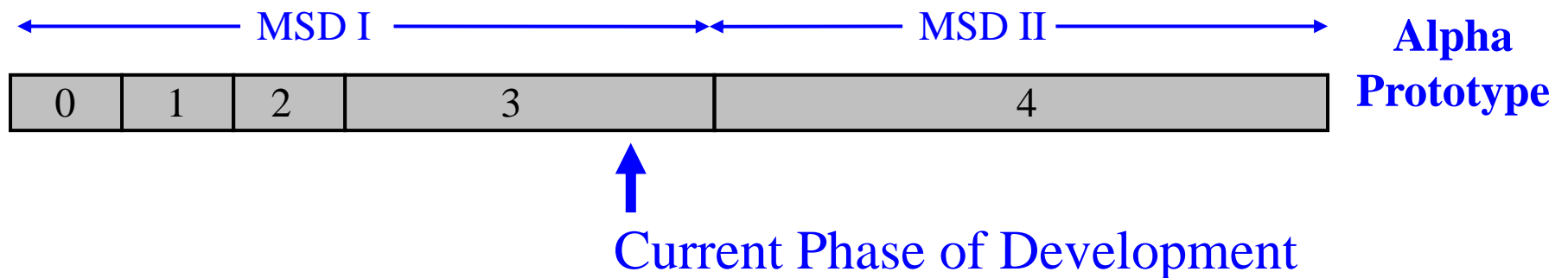
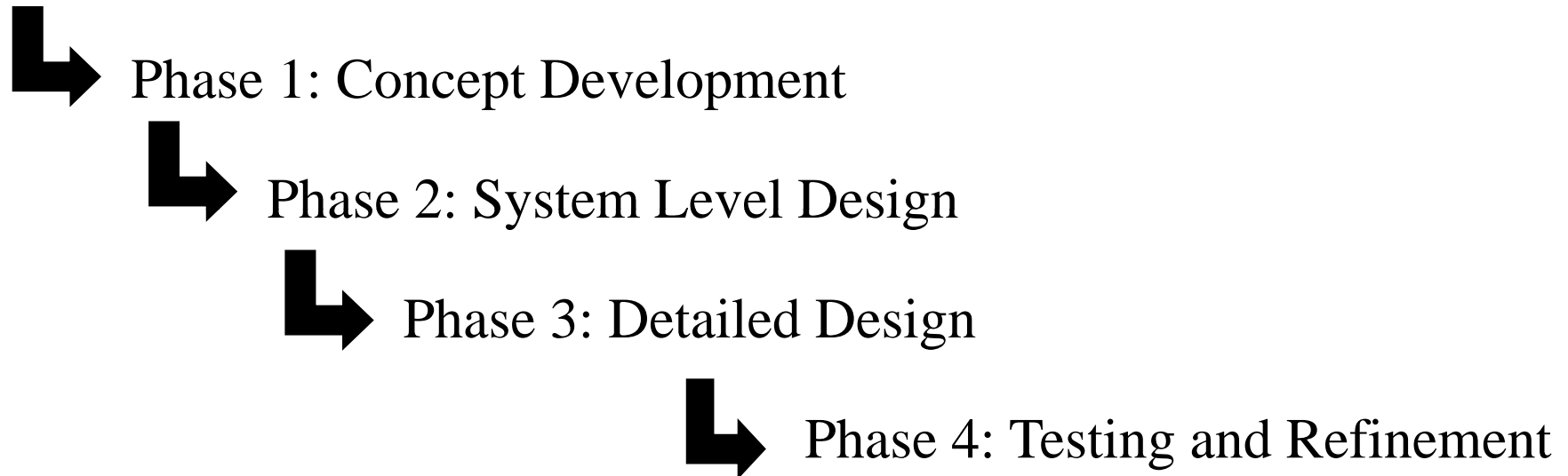
- Risk: Breathalyzer accuracy with variable “blow” rates
 - Breadboard alcohol sensor and test with air saturated with fixed % alcohol at flow rates from 0.1 to 5 liters/min
 - Accuracy of 0.01% requires flow rate in excess of 2 liters/min
 - Sensing technology acceptable at all required environmental conditions and BAC levels
- Reviewed results with project team and customer
- Mitigations:
 - Flow sensor to measure flow rate of air
 - Test results invalidated for flow rates below 2 liters/min
 - Display will flash for user feedback
(links to “no training required” customer need)

Current State of Design

- Design meets all customer needs
- Design meets engineering specifications for full system and subsystems except:
 - Battery life ~ 80 tests
 - Weight 3.5 oz
- On target to meet project budget of \$1200 except for overrun on cost of goods
 - Budget COG (ea) = \$120
 - Actual COG (ea) = \$200
- Schedule: three weeks behind schedule on power system design
- Moderate confidence in drop specification
- Mitigations:
 - Battery life and weight minimal impact to business case → accepted
 - COG changes marketing plan: Need approval or reduction in features
 - Finalize design over Fall/Winter break to regain schedule slip

Product Development Process Phase

Phase 0: Planning



MSD II Project Schedule Milestones

- Dec 3: Design finalized and all parts on order (MSD I milestone)
- Jan 14: Functional alpha prototype (full featured)
- Jan 28: Design verification testing complete, initiate design revisions
- Feb 11: Design Verification Testing Results Complete
- Feb 15: Documentation Finalized: DHF, Formal Paper, Poster
- Feb 20: Project Review - Phase 4 Completion

Presentation Tips

- Formal PowerPoint presentation
- Keep background simple → audience focus on *content*
- Avoid animations unless *functional*
- Use colors that show up well (e.g. avoid yellow on white)
- Make text large (never < 18 point) including figures!
- Bring hardcopy handouts for audience (5 copies)
- Limit number of speakers
 - All team members should speak → break at logical locations
 - Avoid “round robin” organization (i.e. speak only once)
- Dress professionally
- Practice in front of other teams
 - Time < 20 minutes + 5 minutes questions