

*SDP06*

# SDP06 Notes

- require uniform Team home pages
- complete “welcome” and “background” sections of home page
- include dates on all posted documents

# System Block Diagram

(towards the System Specification document)

ECE 415

Thu, 29 September 2005

# Modification to Schedule

## Assignments (on team website)

- 9/22: statement of problem
- 9/29: requirements specification
- **10/6: system block diagram**

## All-course meetings #1 - #5

- 9/8: course organization
- 9/15: statement of problem
- 9/22: requirements specification
- 9/30: system block diagram

**NEW**

## All-course meeting #6

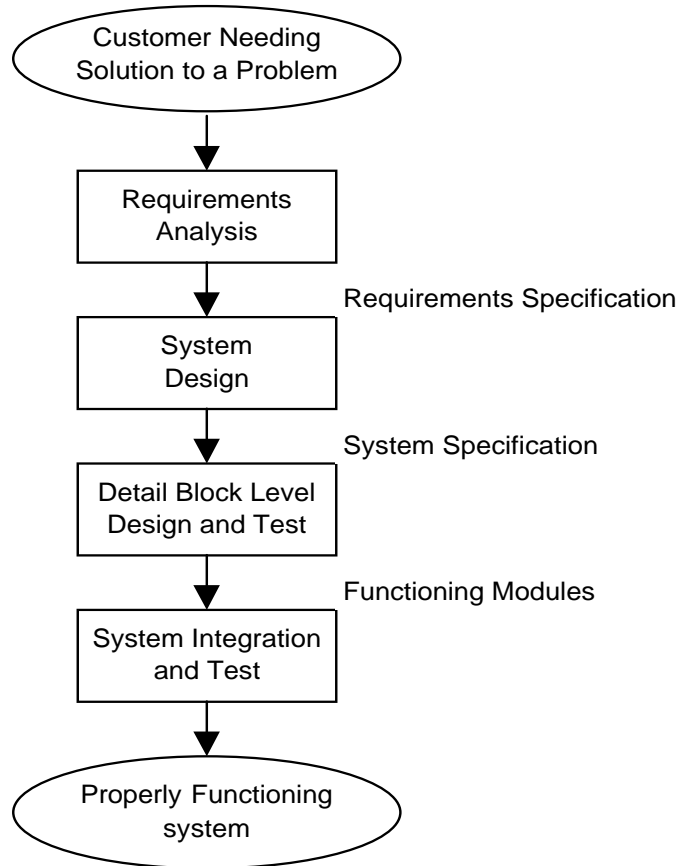
**10/20: system specification due**

## PDR Week

- at SDP lab benches
- presentations (to Faculty Board)
- MDR specifications set
- PDR report due to advisor

September 2005						
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	
October 2005						
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

...a quick review



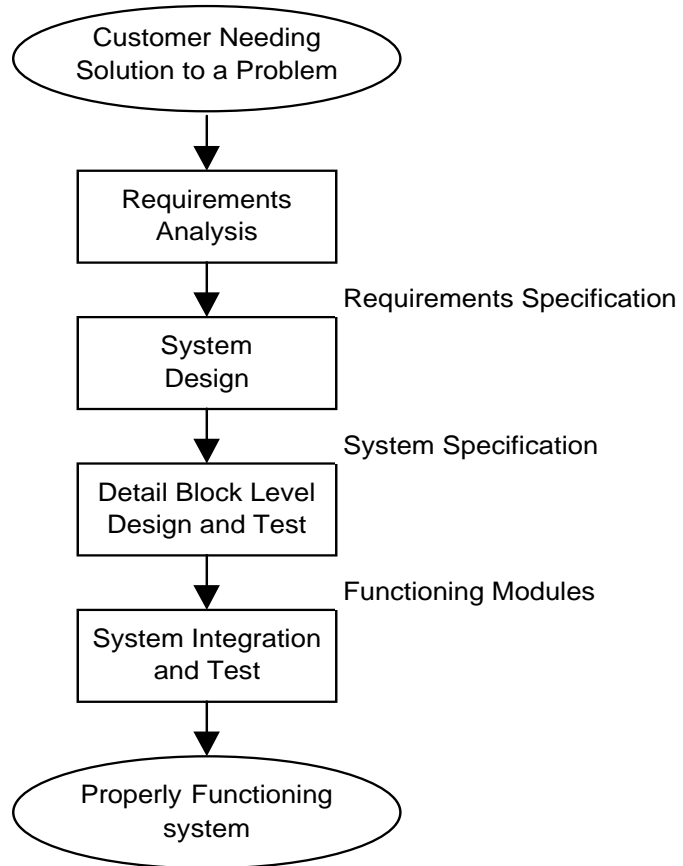
What comes after the  
Requirements Specification?

# SYSTEM DESIGN

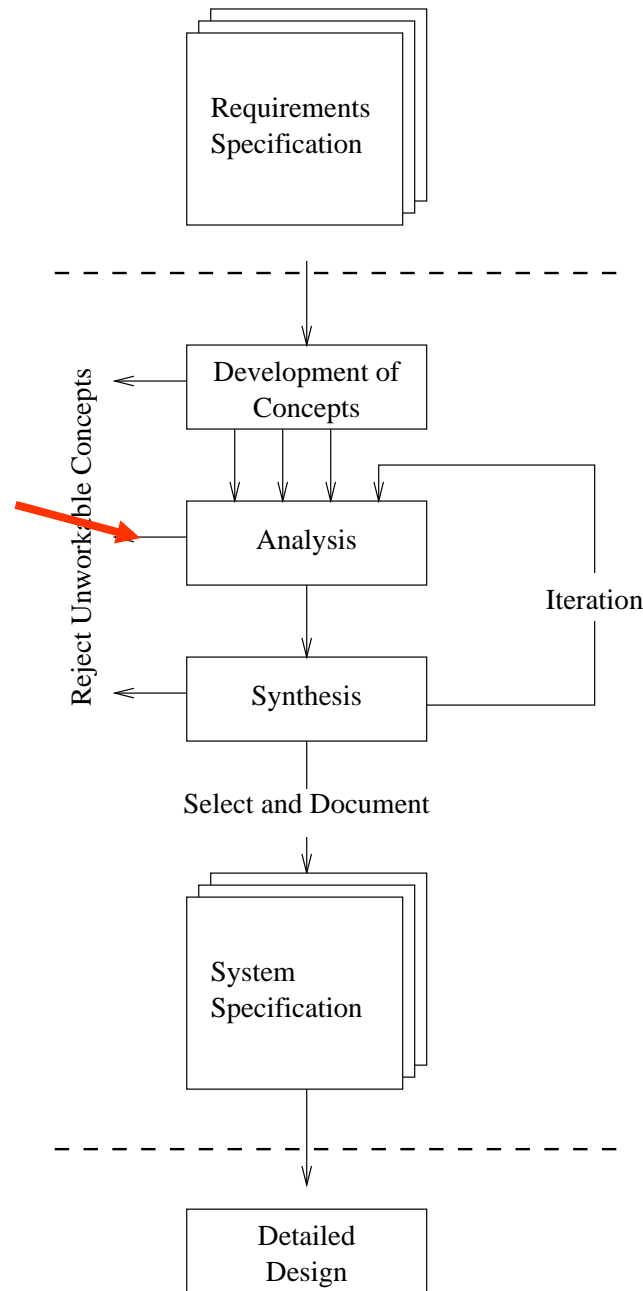
What is the outcome of the  
System Design phase?

What is the outcome of the  
System Design phase?

-->> The System Specification



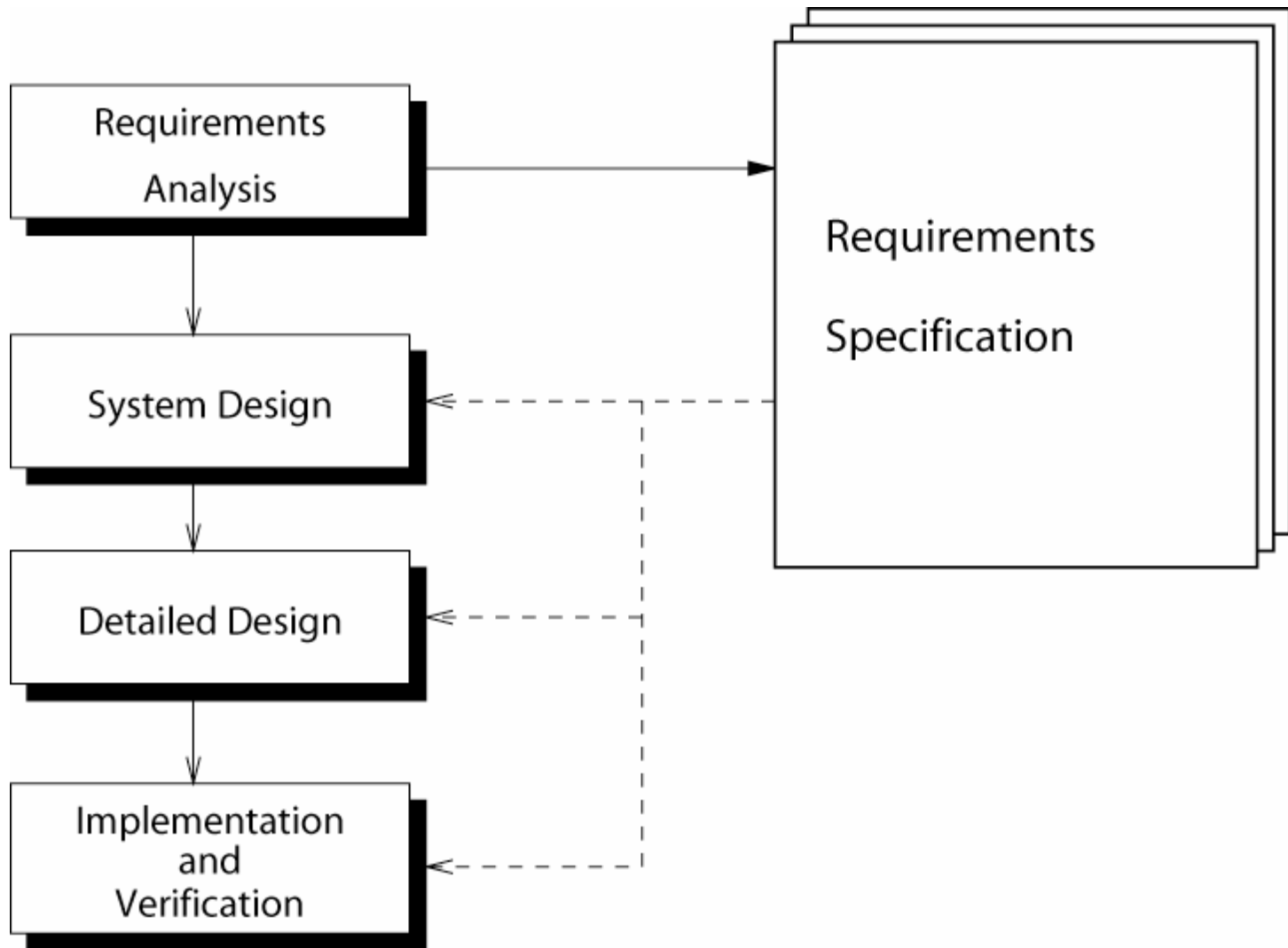
system block diagram  
(assignment #3)



# System Design

guitar tuner  
pp. 147 - 156

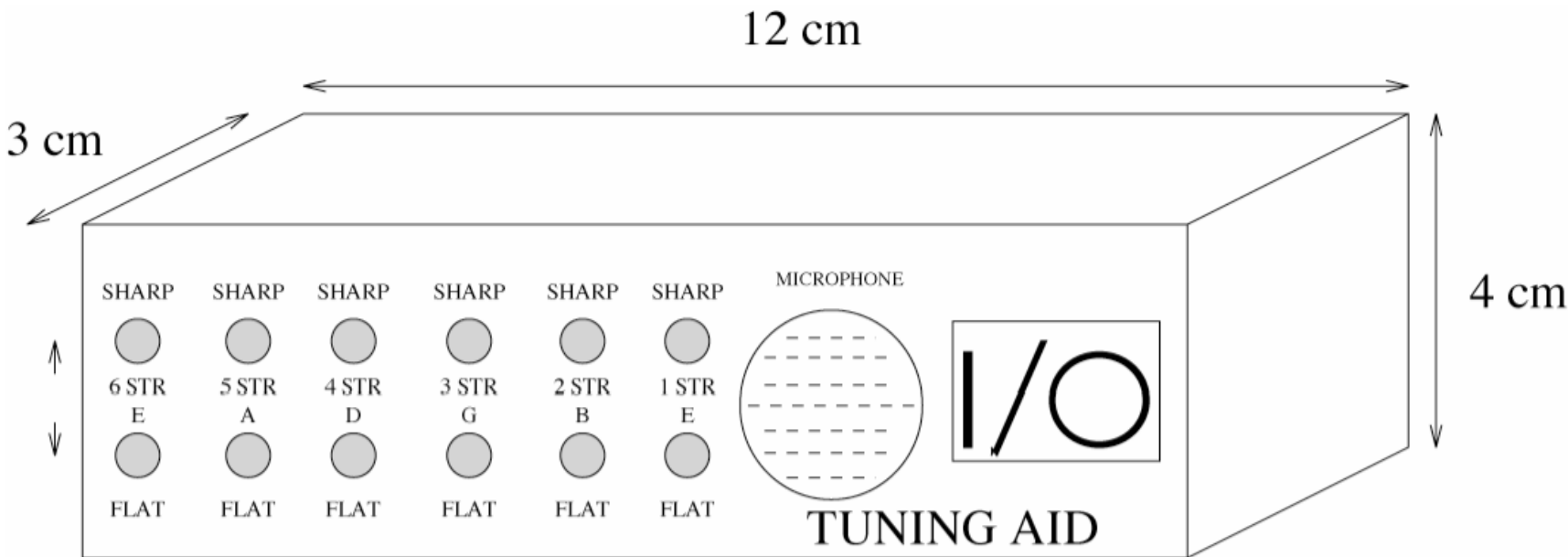
How is the Requirements Spec  
used in the System Design  
phase?



Case study in the appendix:  
Guitar Tuner

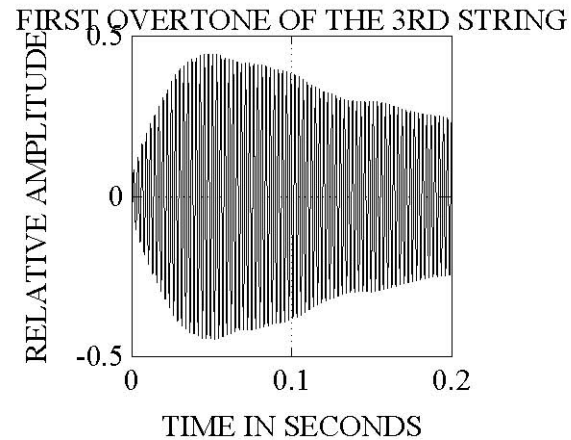
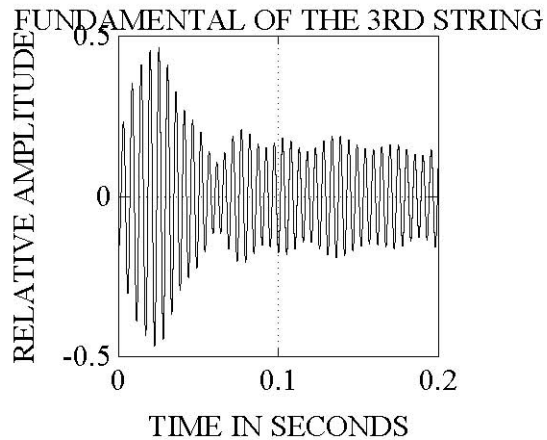
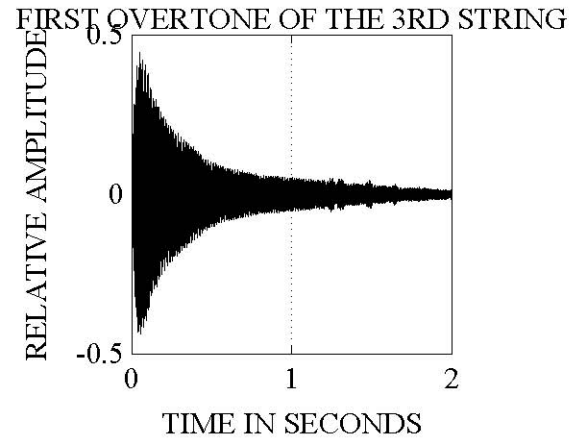
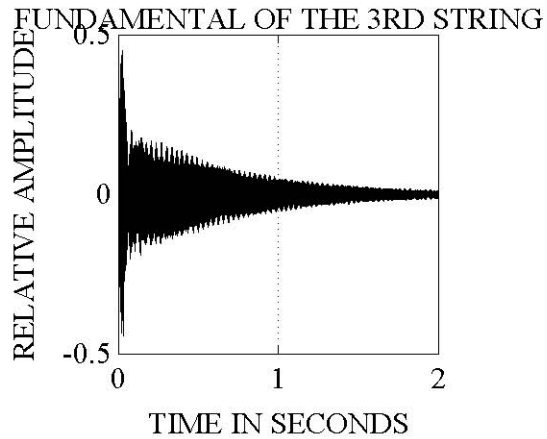
Use the guitar tuner case study as a model for your system block diagram and System Specification document! (page 147)

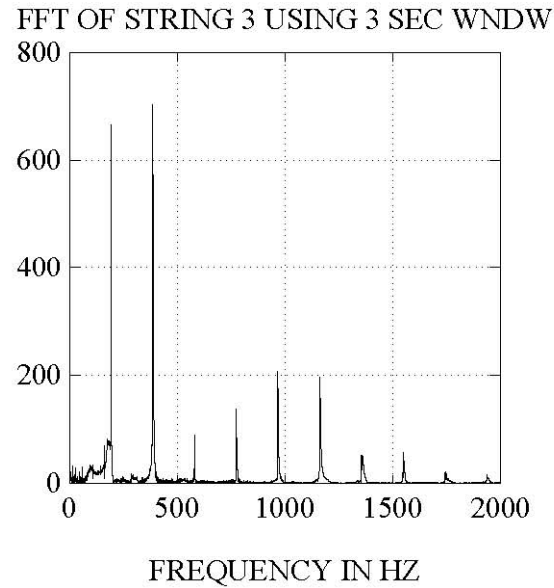
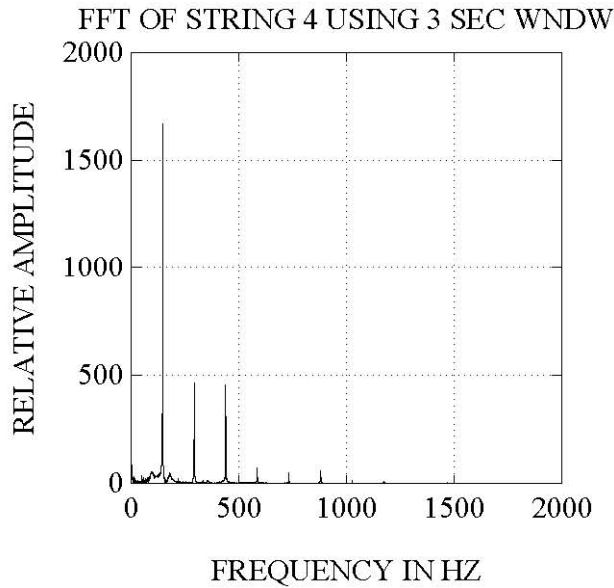
Let's see how Sarah Defoe went  
about designing the Guitar Tuner  
(see page 139+)



AGMC's CONCEPTION OF FINISHED UNIT

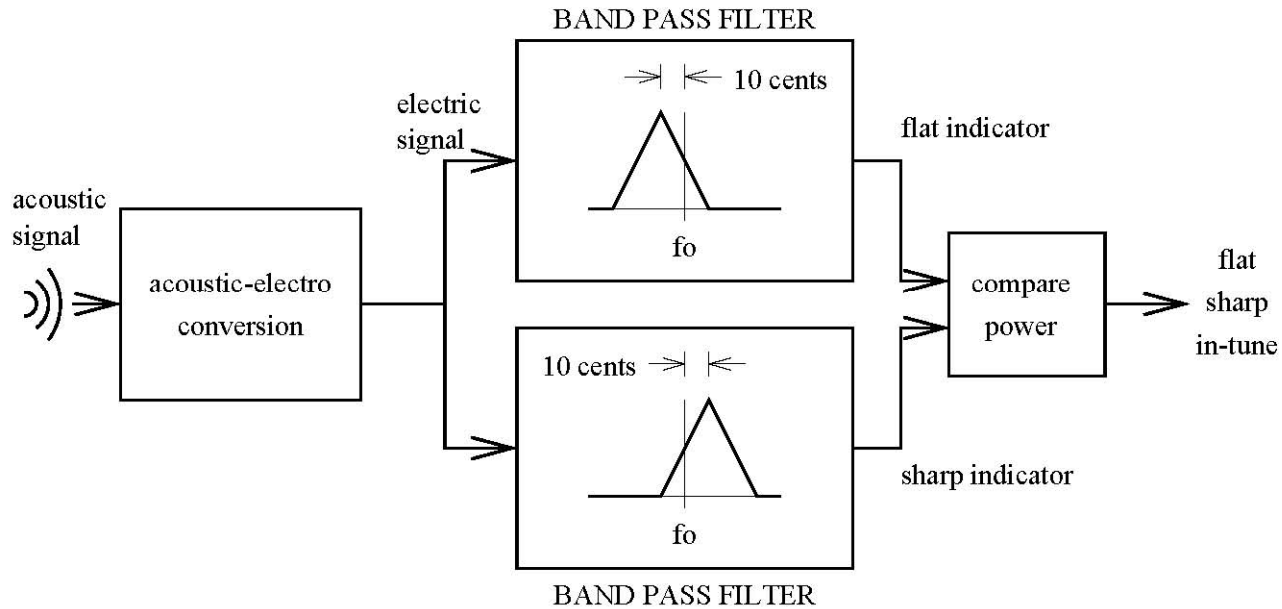
# Modeling the input signal



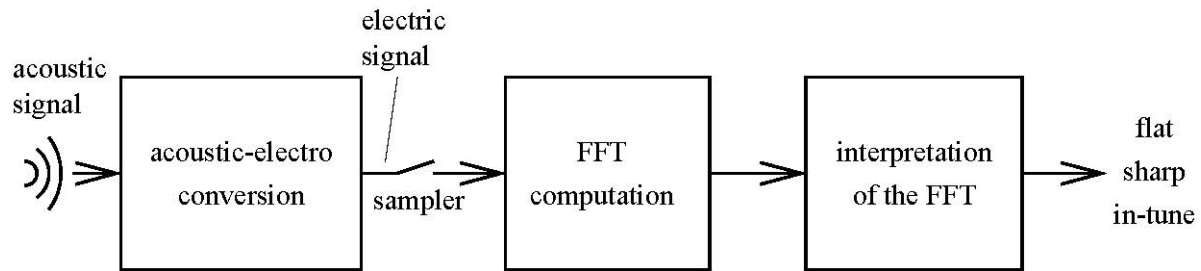


$$\text{input} = \begin{cases} n_1(t) + n(t) & 0 \leq t \leq 0.1 \\ A_1 e^{-\alpha_1 t} \cos(\omega_0 t + \phi_1) + A_2 e^{-\alpha_2 t} \cos(2\omega_0 t + \phi_2) + n(t) & t > 0.1 \end{cases}$$

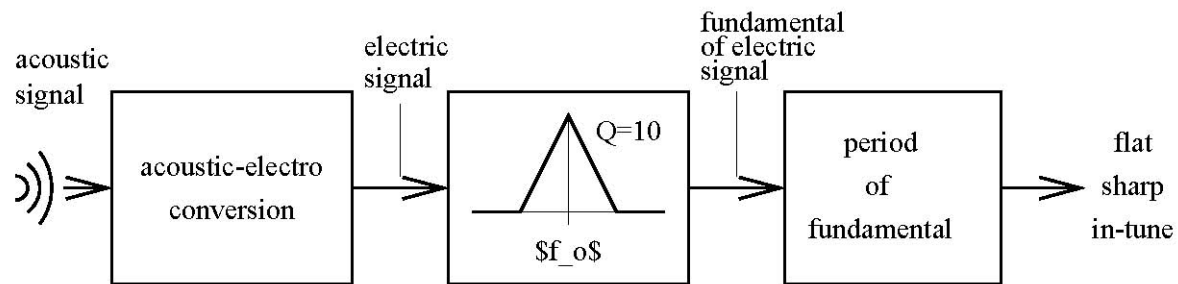
# Concept 1



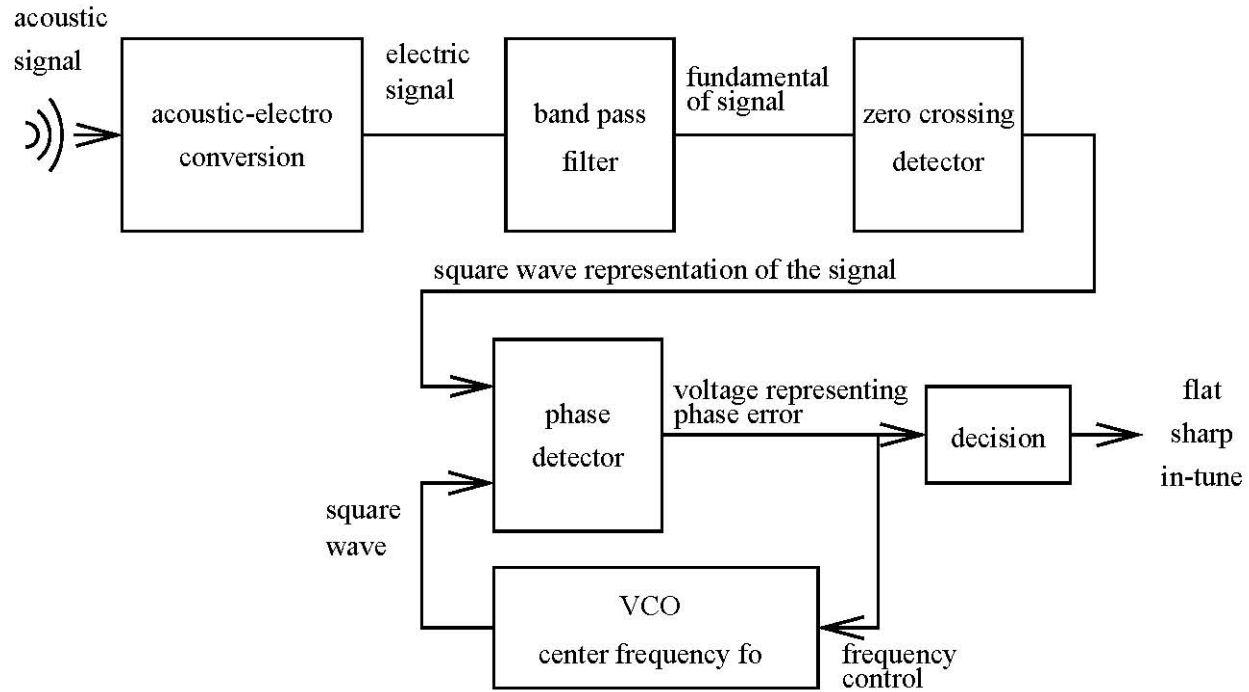
# Concept 2



# Concept 3

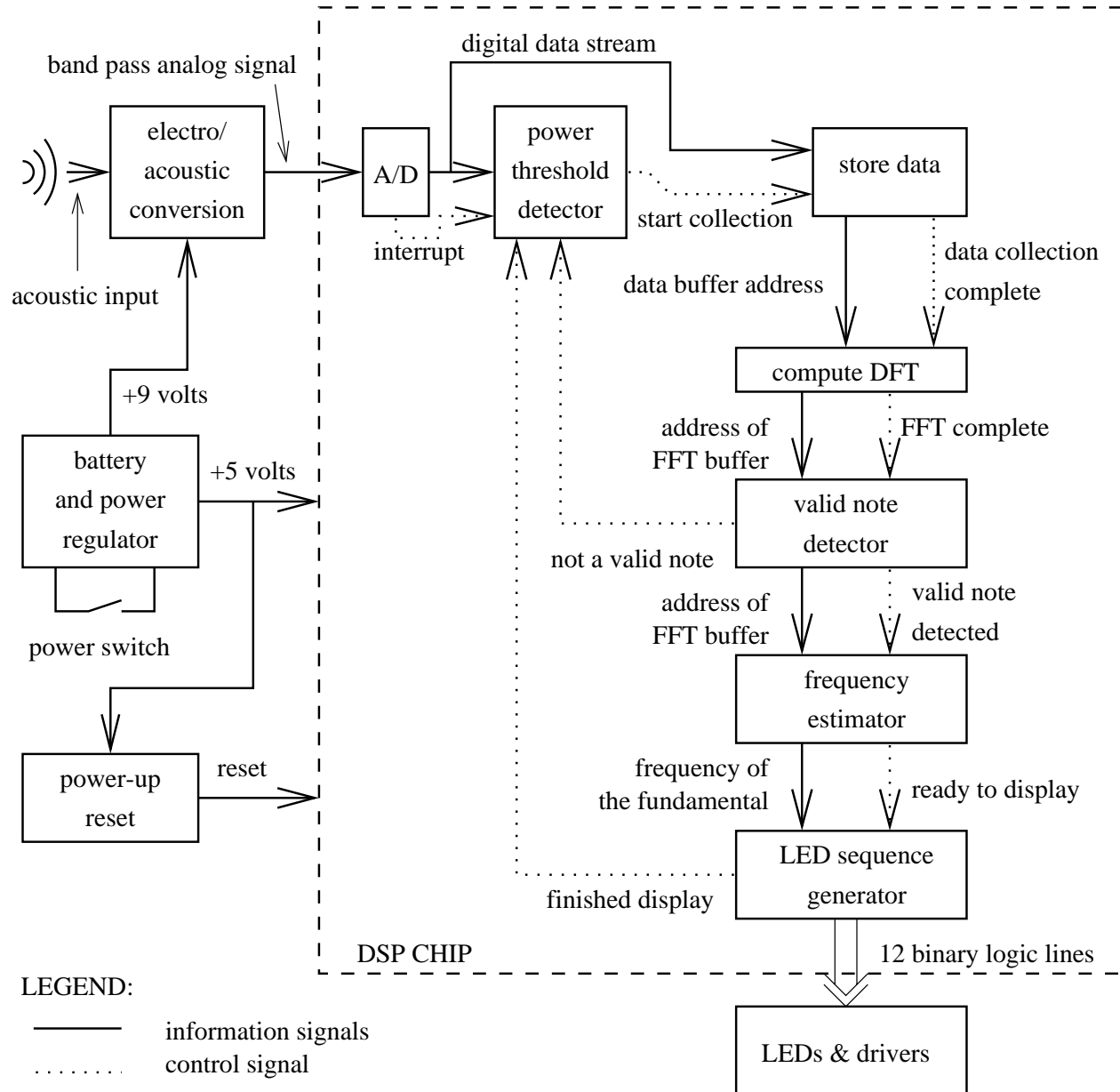


# Concept 4



# System Block Diagram

Due 6<sup>th</sup> October, 2005



# The assignment:

- The System Block Diagram
- Deadline: posted on web site, next week (Th 6 Oct 2005)