

Sensitive Buildings 2012

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Plan for Today

- XBee Exercises: review
- Focus groups discussion
- Focus groups organization
- Math for Mesh
- Workshop
- Readings & Assignments

XBee Exercises Review

Focus Groups



Focus Groups Assignment

- Conduct a focus group with the residents of 240 Central Park South. The purpose will be to learn about life in the building from the people who live there, and to understand the people themselves—their perspectives, personalities, concerns and aspirations. Your goal will be to replace the schematic representation of what you think the residents and their life is like with a more accurate and richer understanding of their reality. In the process, you will keep an eye out for project opportunities and inspirations.

Focus Group Procedure

- Recruitment and sessions
- Procedure: 2 groups, 4 topic areas, 4 leaders
- Leader role, participation
- Stay flexible



Focus Group Tips

- Recordings only for backup.
- Stimulate group discussions.
- Manage the conversation.



Focus Group Tips

- Moderate!
- Open-ended questions, examples.
- Seek edge cases
- Dig deeper



Focus Group Tips

- Be yourself
- Afterwards:
 - notes
 - discussion
 - description
- Guide for thinking



Focus Group Summaries

- Create a summary of your experience that tells:
 - all the striking quotes that you heard
 - what did you learn? what surprised you? is there anything that you should now consider? is there anything you should now avoid?
 - what are some projects that might address what you heard specifically?
 - what are some projects that might react to the people themselves, or to them as a group?
 - what data is still missing and what further research would you recommend?

Focus Groups Prep Workshop

- Divide into groups
- Brainstorm topics
- Roughly divide topic areas
- Elect discussion leaders



Math for Mesh

Math for Mesh

- Binary, Decimal, Octal, Hexadecimal
 - Why?
 - Serial communication
 - XBee configuration
 - Programming helper
 - What?
 - It's all notation

Decimal

- Place system
- Powers
- Adding and carries
- Notation (not usually needed)

Binary

- Place system
- Notation: %010 010b 0b10
- Powers
- Adding and carries
- Finger counting!

Octal

- Place system
- Notation **073**
- Powers
- Adding and carries

Hexadecimal

- Place system
- Notation: extra digits, 0x10, #FFFFFF
- Powers
- Adding and carries
- Switches yes: 0xFF = 1111 1111 and 0x3C = 0011 1100

ASCII

- American Standard Code for Information Interchange
- 65 = A
- 48 = character zero, 49 = character one
- 32 = space, 10 = line feed, 13 = carriage return

One Question Quiz

- what is this: 10

Doorbell Exercises



Readings and Assignments

- Readings
 - Building Wireless Sensor Networks Chapter 4
- Assignments
 - focus groups