Audio Conference Communication System (ACCS)
Why ACCS?

• Robust Communication
  – Independent of the Internet.
  – Independent of Phone Network.

• Single Communication Channel and Minimum Wiring
  – Implementation of TDMA at a coordinator base
Overview and Features

• The prototype has 4 stations (one acts as a coordinator and station.)
• Stations are only connected to coordinator, sharing a single communication channel.
Features

• Conference Calling.
• Call or Add new individual during an ongoing conversation.
• Record/Listen to voicemail – saved on Flash ROM.
• Display system state on coordinator monitor. (active conversations)
• Display state on individual station monitors. (busy, available, calling, recording voicemail...etc)
Overall System
User-End Implementation
Coordinator Module

TDMA

Window Module

Receive Acknowledgment Module 2

Talking Module

Calling Module

One Byte Decoder Module 2

User_ID Module

Send Acknowledgement Module 2

Multiplexor Module

ABC

Coordinator Display Module

ACK(info)

Coordinator

One Bit

ACK (Window)
Coordinator- TDMA

TDMA- Sliding window
Coordinator Module
Coordinator and Display
Data rate and acknowledgement

Data rate calculation:

\[ 6k \times 2 \times (6 \times 2 + 8) \times N \text{ of stations} < 1 \text{ M} \]

Acknowledgement:

It is chosen to be 011110.
Timeline

- We have already implemented most of our modules
- Modules integration and testing -------------------Week of 11/12
- Display Modules and voice mail-------------------Week 0f 11/21
- Adding more features i.e wireless and video---Week of 12/01