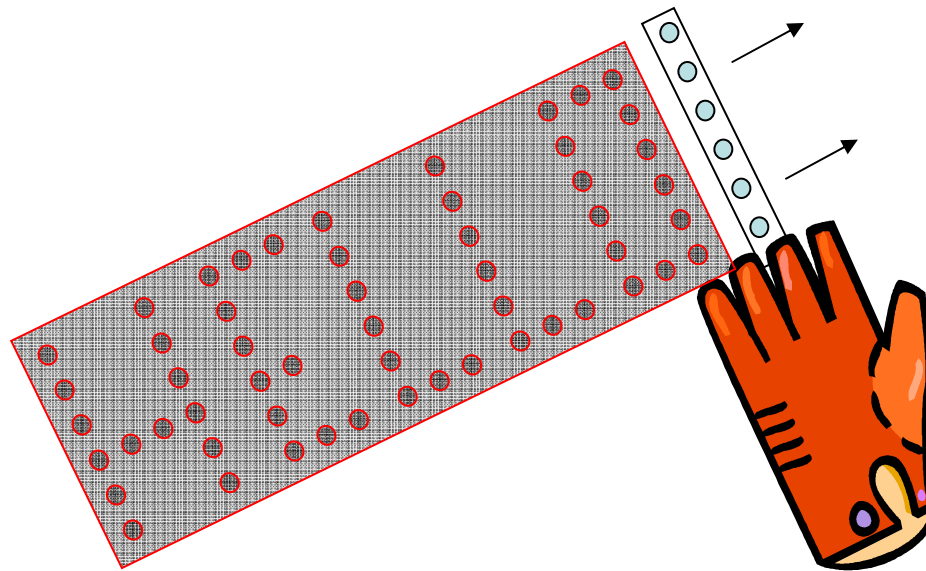


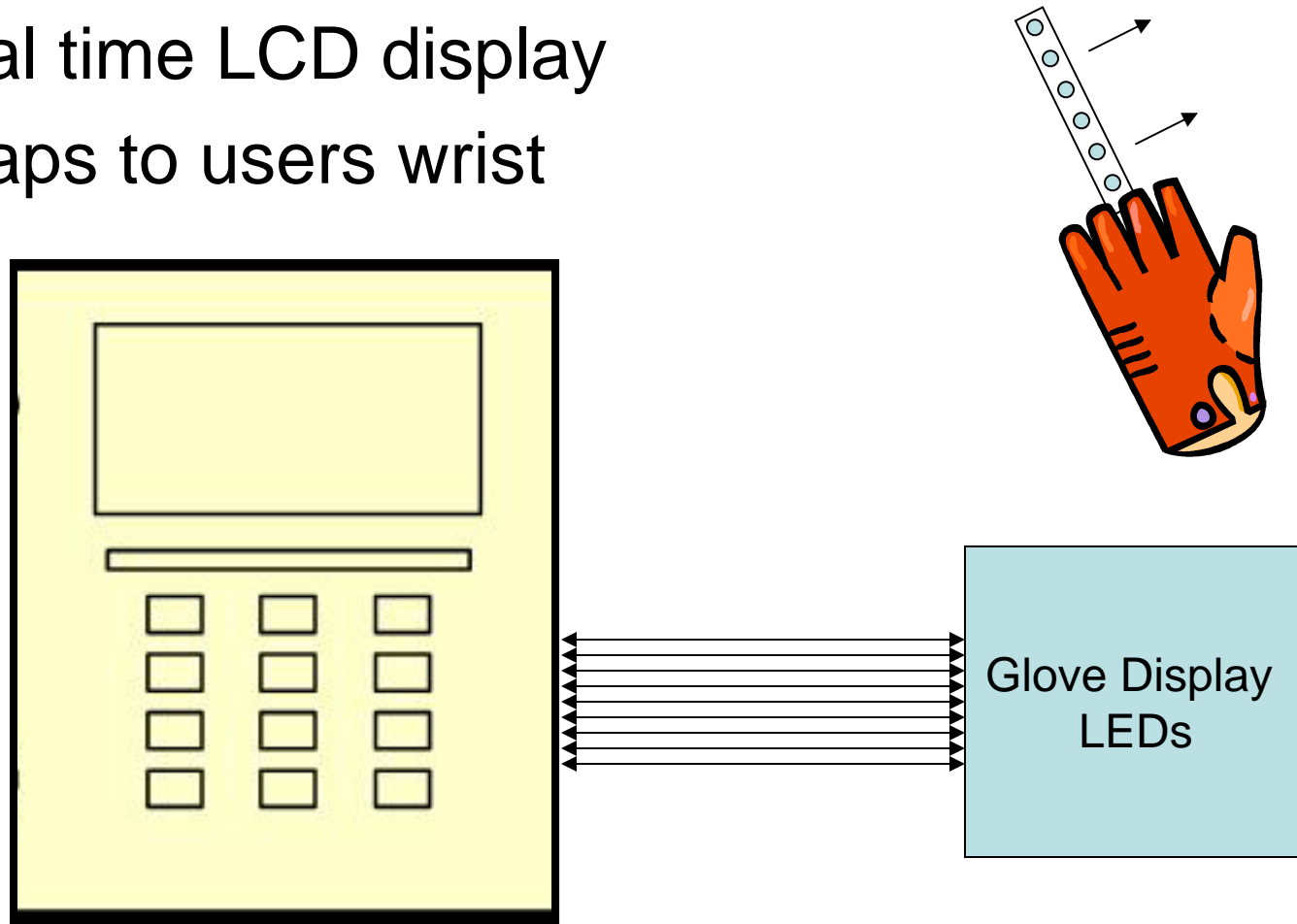
TextWand Programmable LED Display



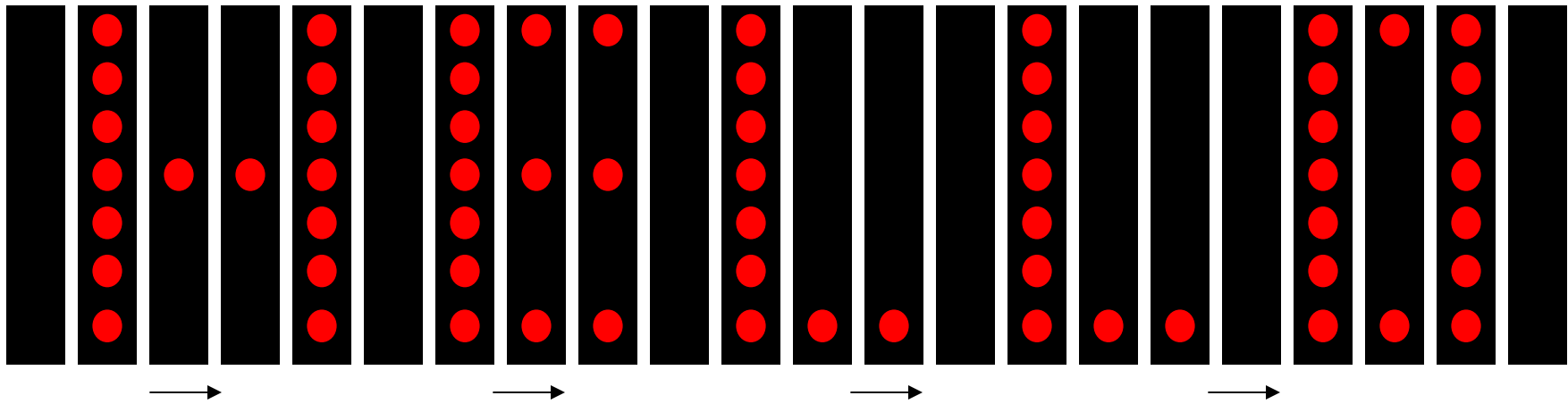
Carlos Vila-Virella and Andy
Campanella

User Interface

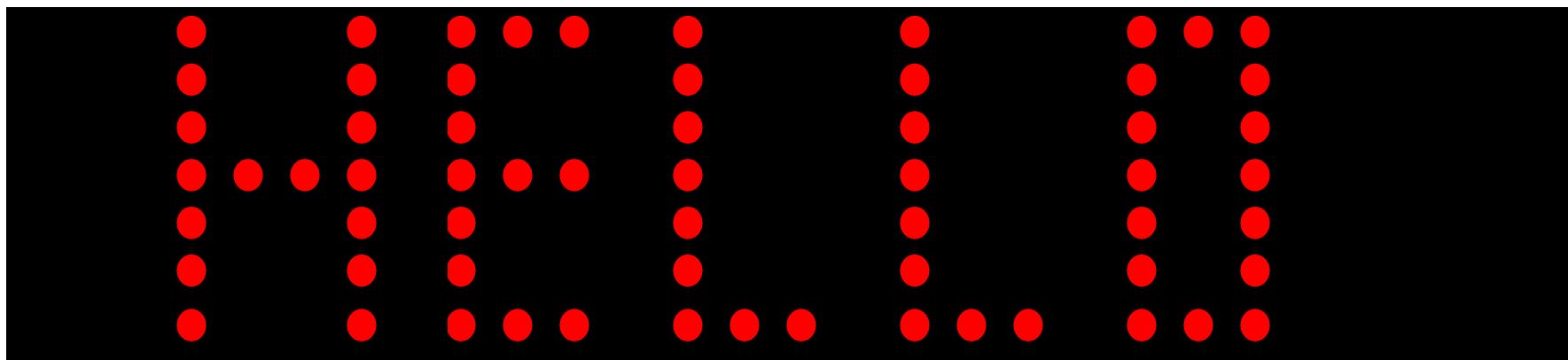
- 16-button alphanumeric keypad
- Real time LCD display
- Straps to users wrist



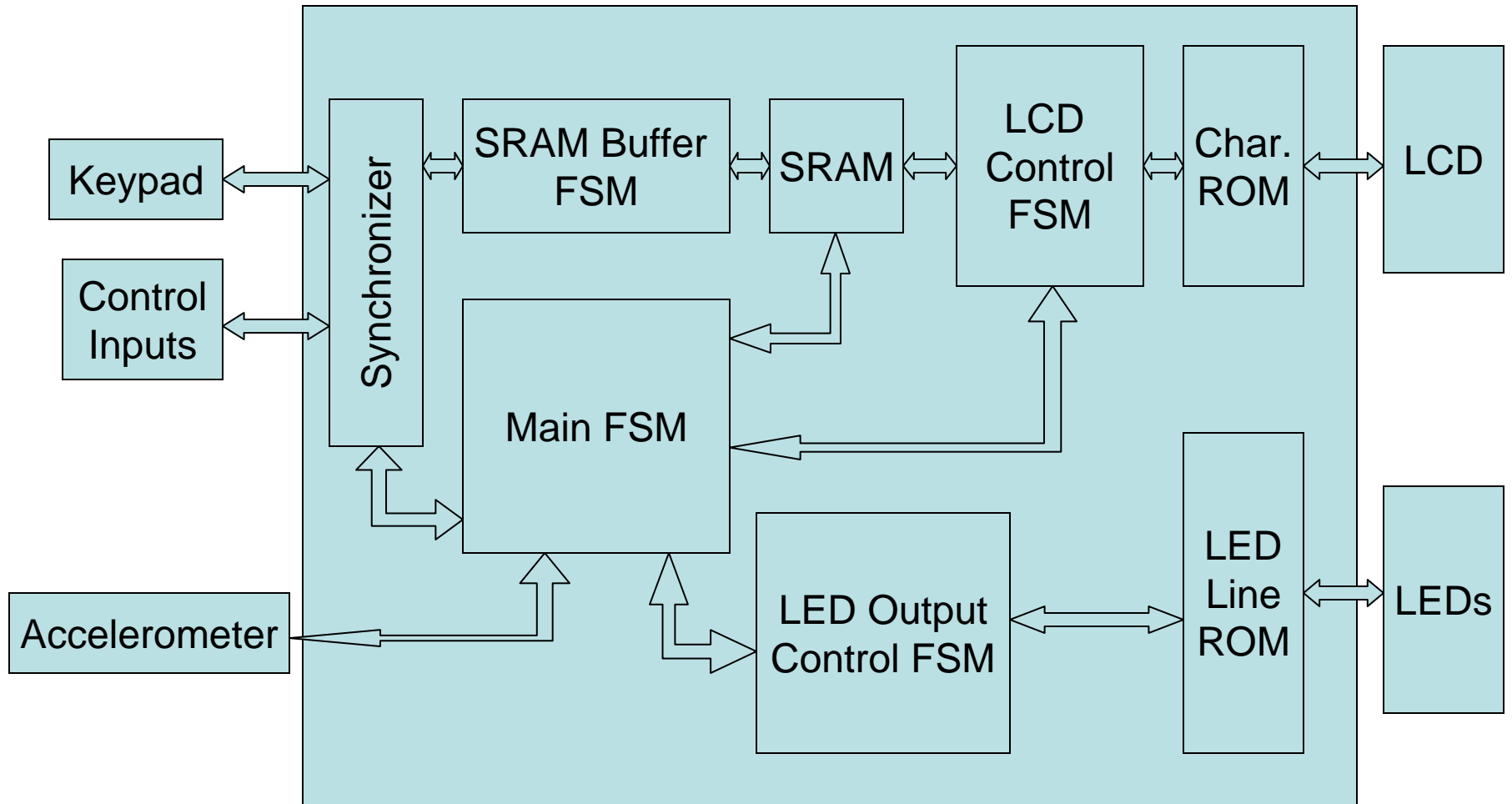
Output Device



Choice of strobed LED line display, or simple scrolling character screen



System Block Diagram



System Description

- SRAM buffer stores up to 128 character message
- LCD display continuously updates from SRAM buffer data, until user presses “enter”
- LCD Character ROM stores LCD letters
- After user presses “enter,” accelerometer impulse begins message scrolling
- Can connect either scrolling LED display or strobed line display
- Keypad and LCD wearable on wrist, display mounted on glove

Important Milestones

- Make test display wand - already done
- Accelerometer Interface & Testing (Both) – By Monday 4/25
- Make character and line ROMs (Both) – By Monday 4/25
- Implement input buffer and LCD display (Andy) – By Friday 4/29
- Get LED output devices working (Carlos) – By Friday 4/29
- Interface keypad input with LED output (Both) – By Wednesday 5/4

Additional Functionality: Memory

- Include RAM with programmable and canned message options for user
- Scroll through memory with arrow keys
- Store, Clear and Memory Recall buttons save and recall messages
- Canned messages loaded into SRAM buffer so they can be edited

