

- MPLAB® X (v1.90 or higher)
- MPLAB® XC16 (v1.10 or higher)
- Microstick 2
- GLCD
- LM60 Temperature Sensor
- Keypad

Final Lab Project Temperature Data Acquisition System

? The Challenge

You are to create a system that will measure and save up to ten readings from a LM60 temperature sensor. The project is to have the following functionality:

- 1. Power on self check. Blink a red LED once. Display a bouncing ball (three bounces).
- 2. Display options: 1) read, 2) save, 3) recall 4) clear and 5) download. Ask for selection
- 3. Press 1 to read sensor and display reading on GLCD. Blink LED once.
- 4. Press 2 to save sensor reading and acknowledge save on GLCD. The date and time the reading occurred will be saved with the sensor data. When the data is saved blink the LED twice.
- 5. Press 3 to recall a specific saved reading. Ask for reading number.
- 6. Press 4 to clear the latest reading without saving. Blink LED once.
- 7. Press 5 to download all the save data to a remote terminal. Clear all data after download. Blink the LED once after the download is finished.
- 8. After any selection is finished return to Display options screen.