The background features several large, stylized, overlapping swirls in shades of purple, green, and light blue. Interspersed among these swirls are numerous small, yellow, triangular shapes that resemble sun rays or decorative accents.

# CSCI 339-80 Embedded Systems

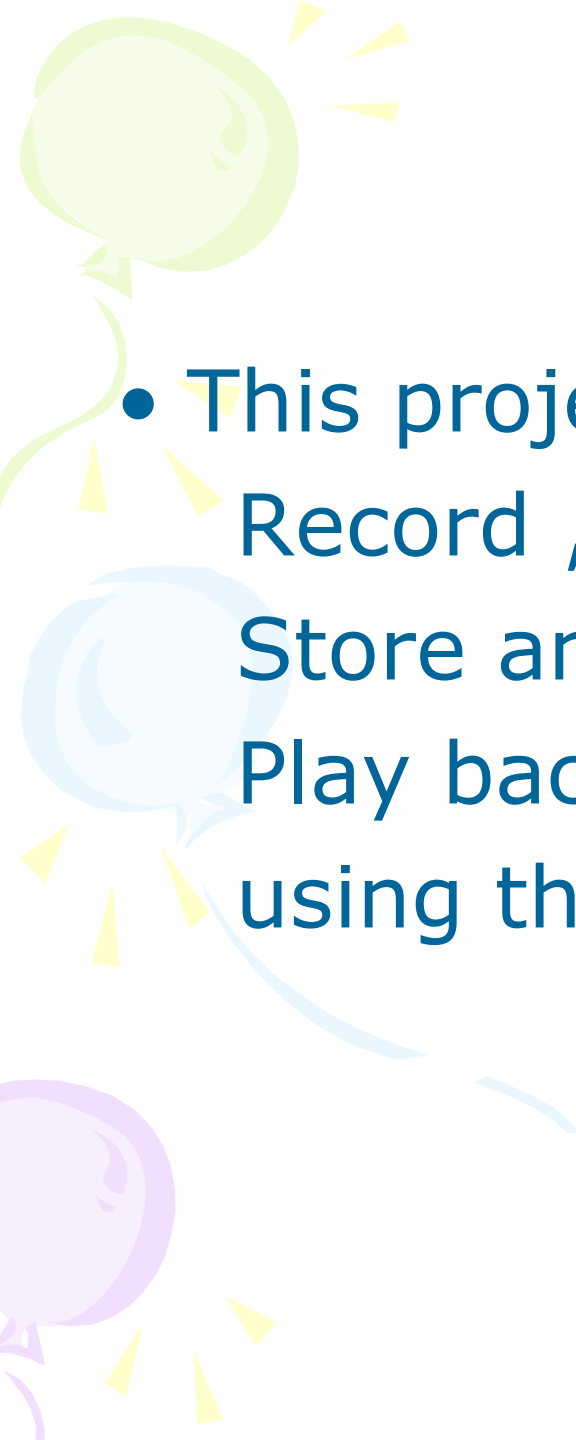
**Instructor**

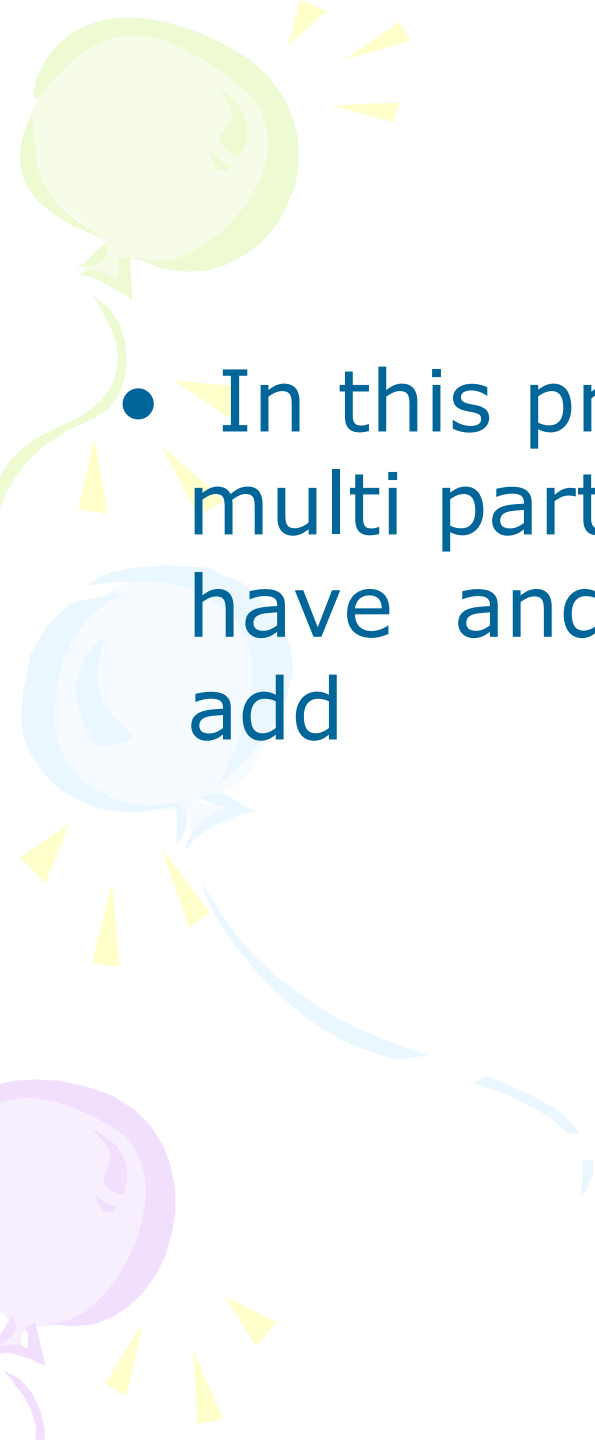
**Dan Eisenreich  
Done by**

**Ibrahim Obeidat**

The left side of the slide features three stylized balloons: a green one at the top, a light blue one in the middle, and a purple one at the bottom. Each balloon has a thin, wavy string and is surrounded by several small, yellow, triangular shapes that resemble confetti or light rays.

# **Voice Recording Using Z8 board**

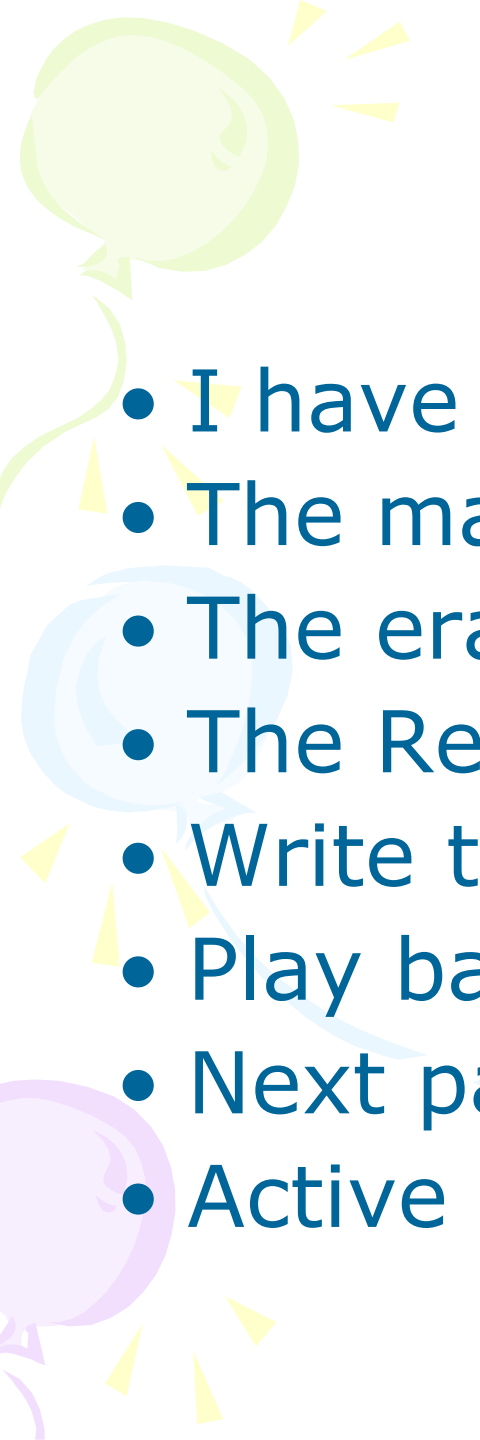
- 
- This project describes How to Record , Store and Play back sounds using the z8f6403 board .

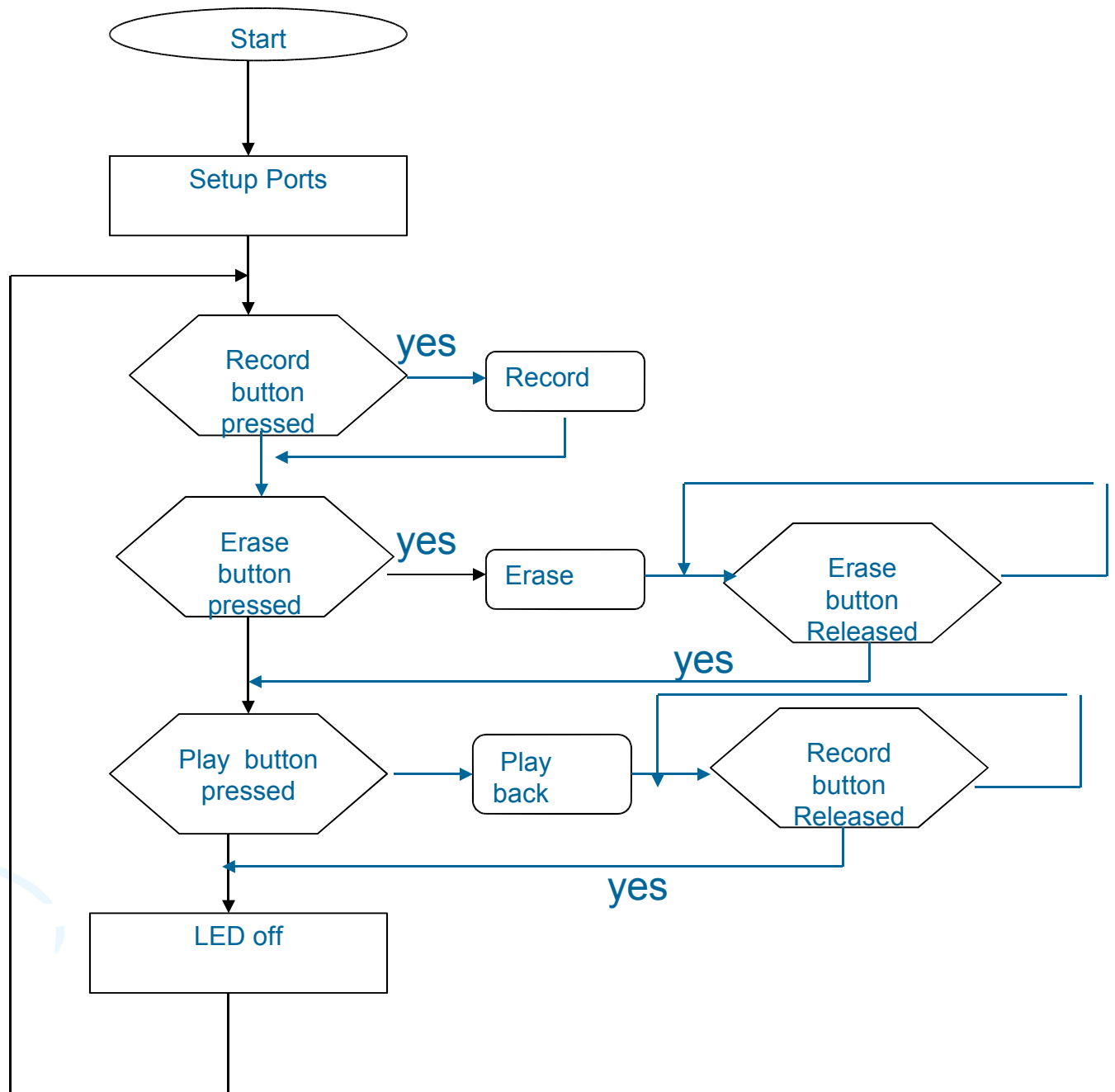
- 
- In this project I tried to use the multi parts that the z8f6403 board have and some more components I add

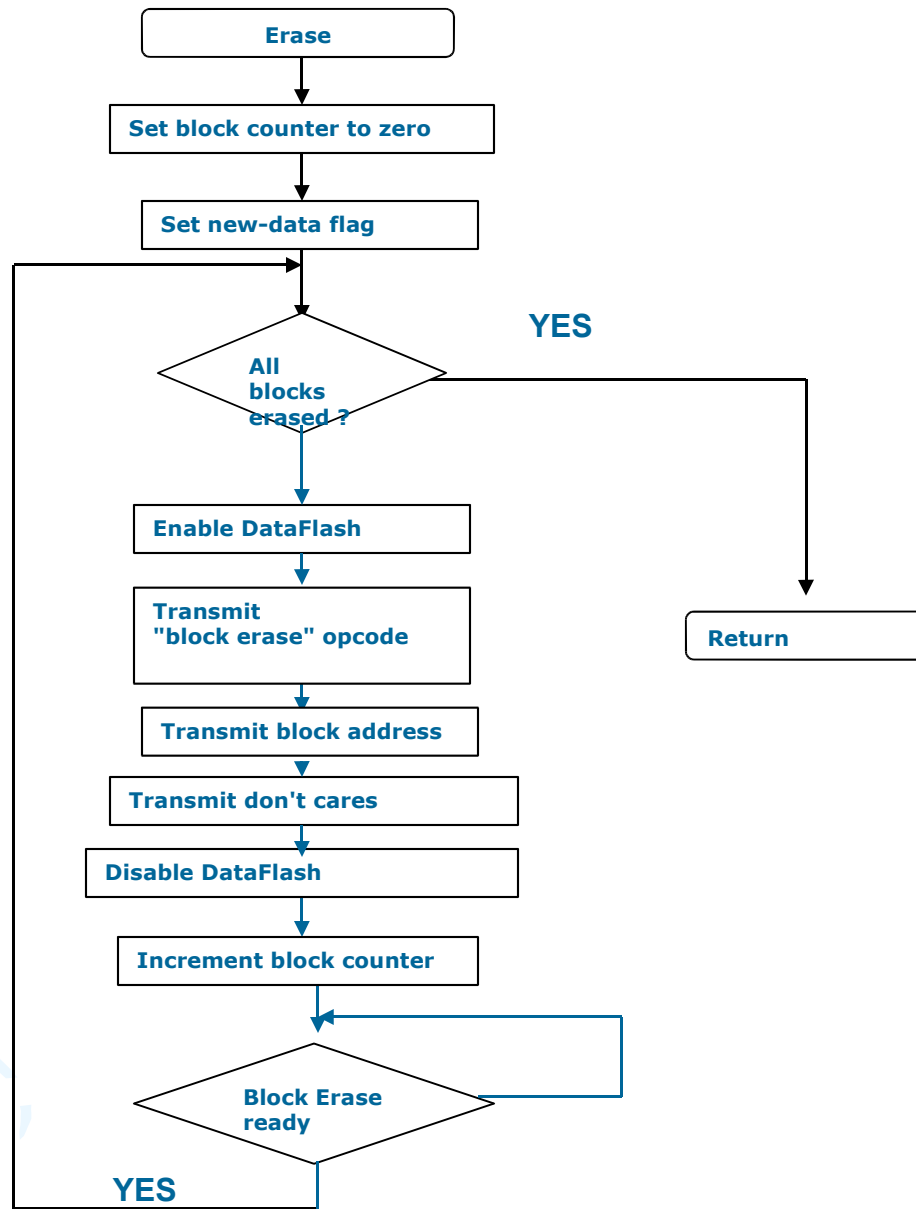


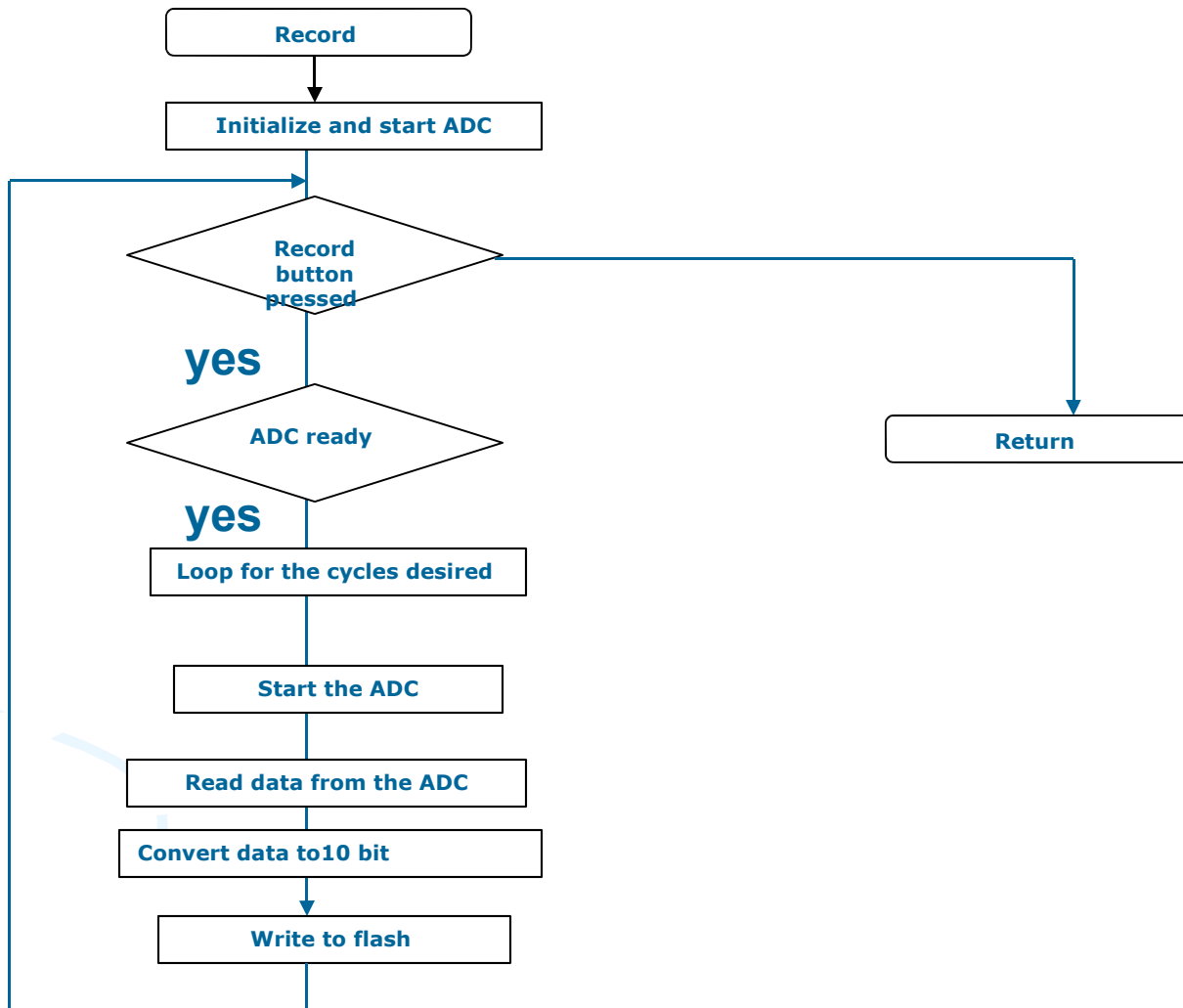
# These parts are

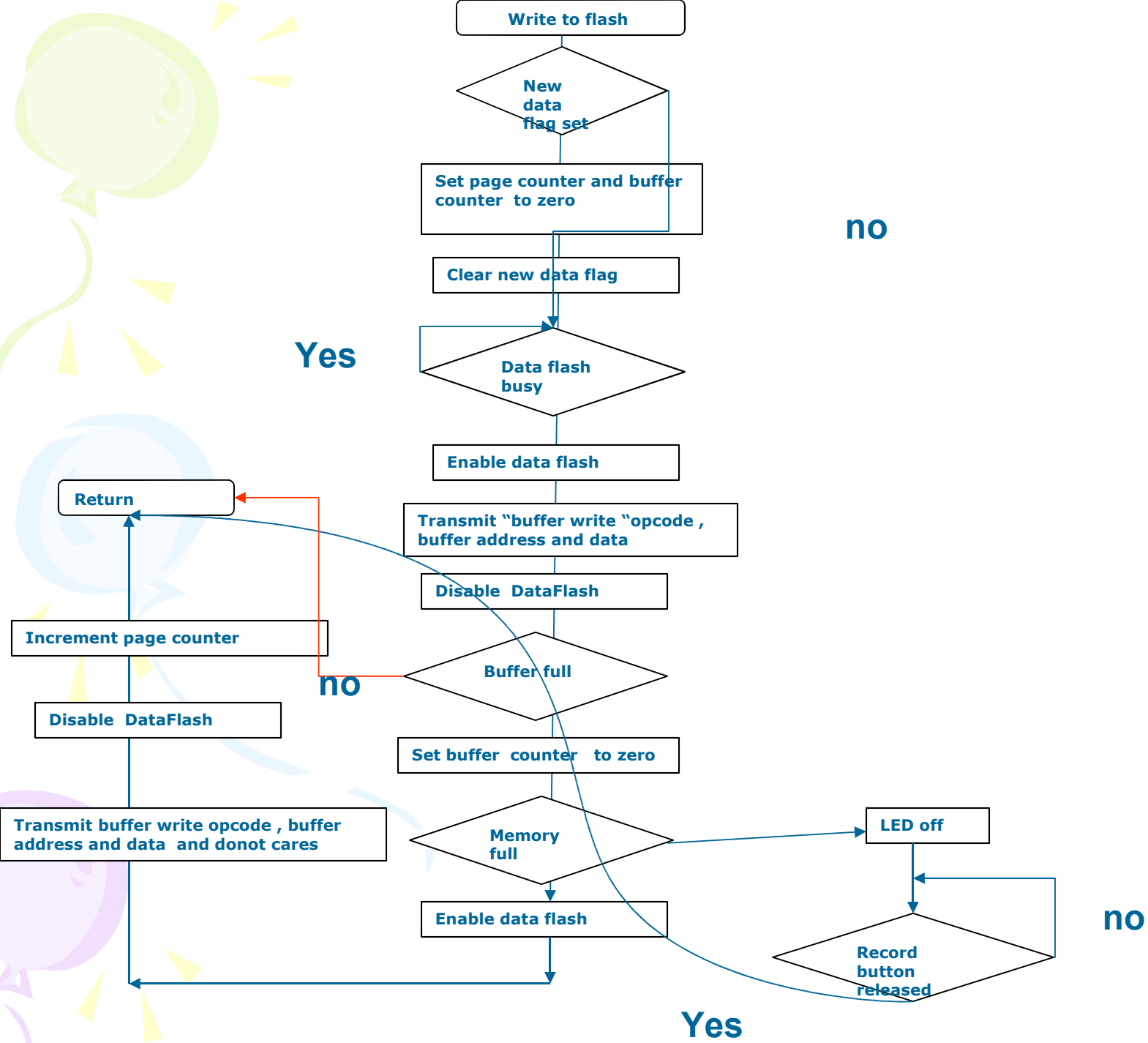
- The Analog to Digital converter
- The SRAM
- The Flash memory
- The Digital to analog converter
- In addition to
  - Microphone connect to ANA0 pin
  - Speaker connect to timer 0

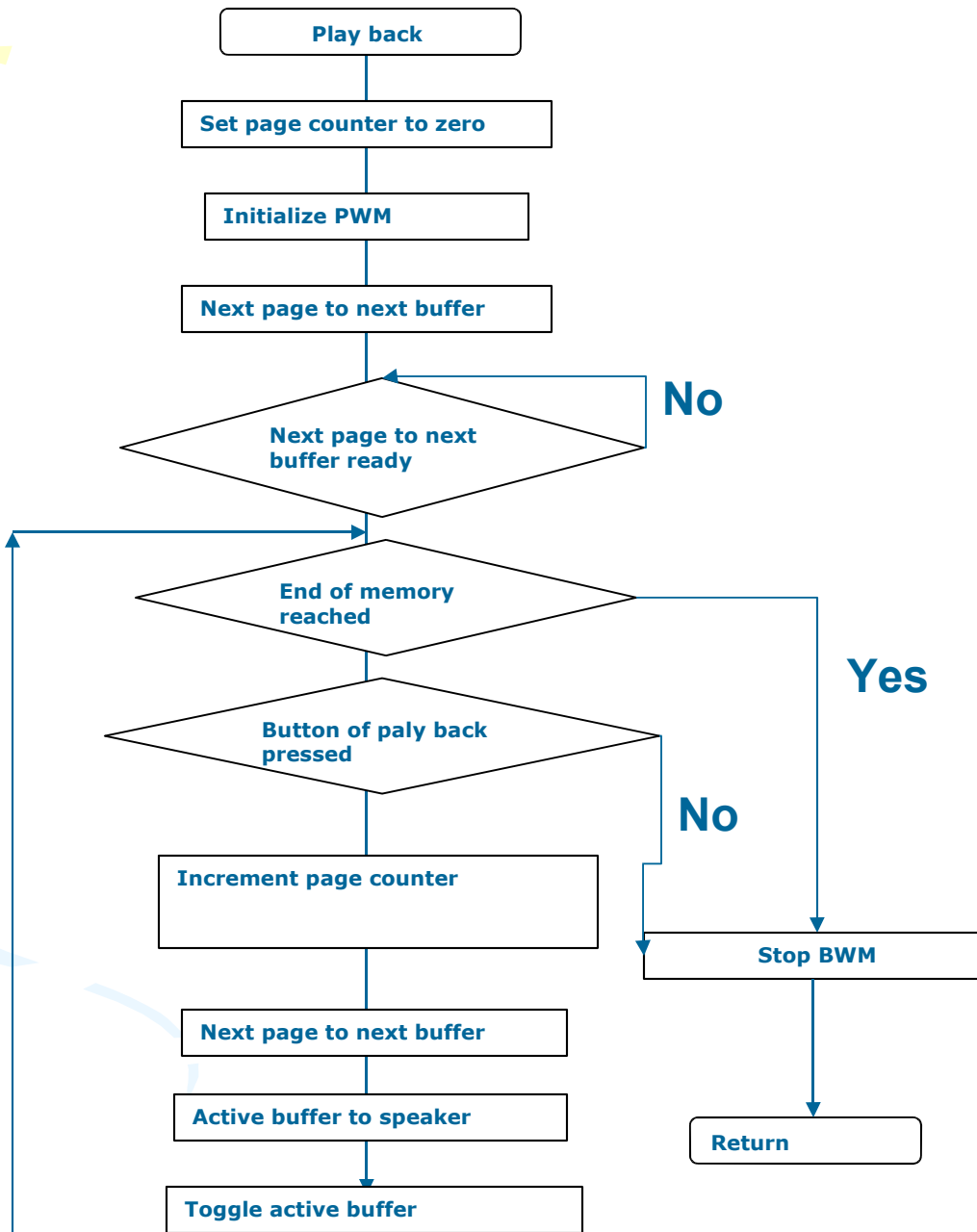
- 
- I have divided the project to
  - The main part
  - The erase part
  - The Record part
  - Write to flash
  - Play back
  - Next page to next buffer
  - Active buffer to speaker

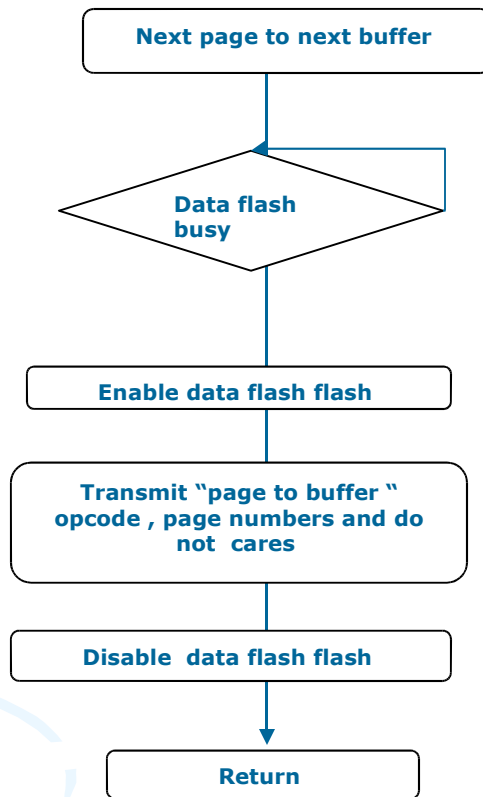




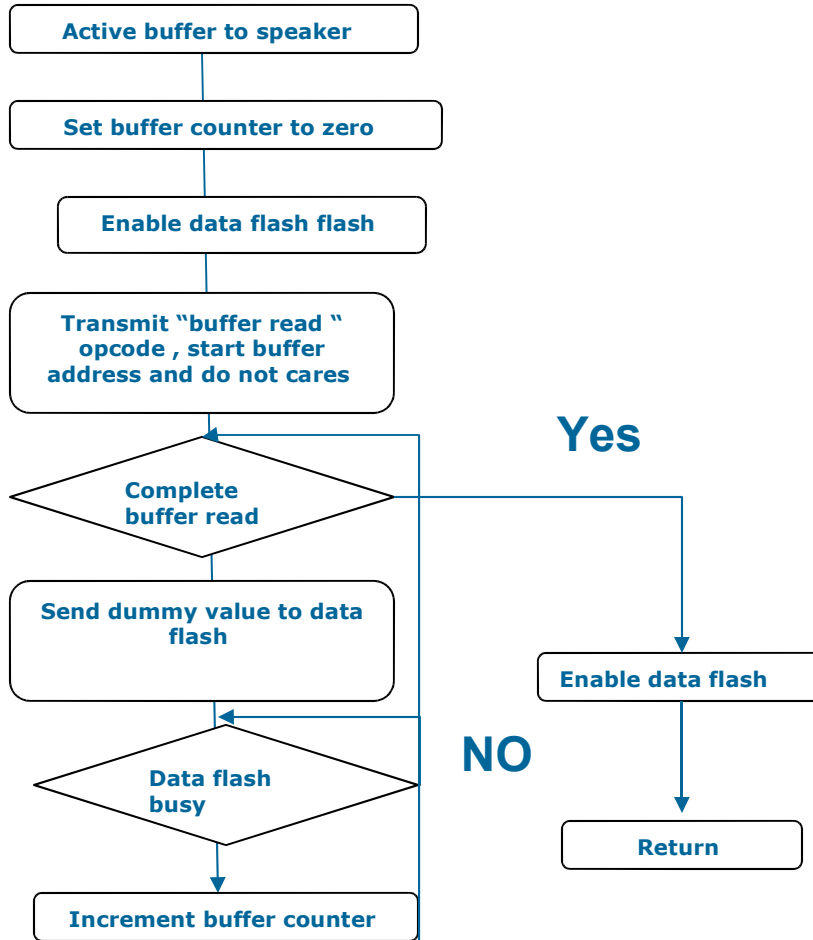


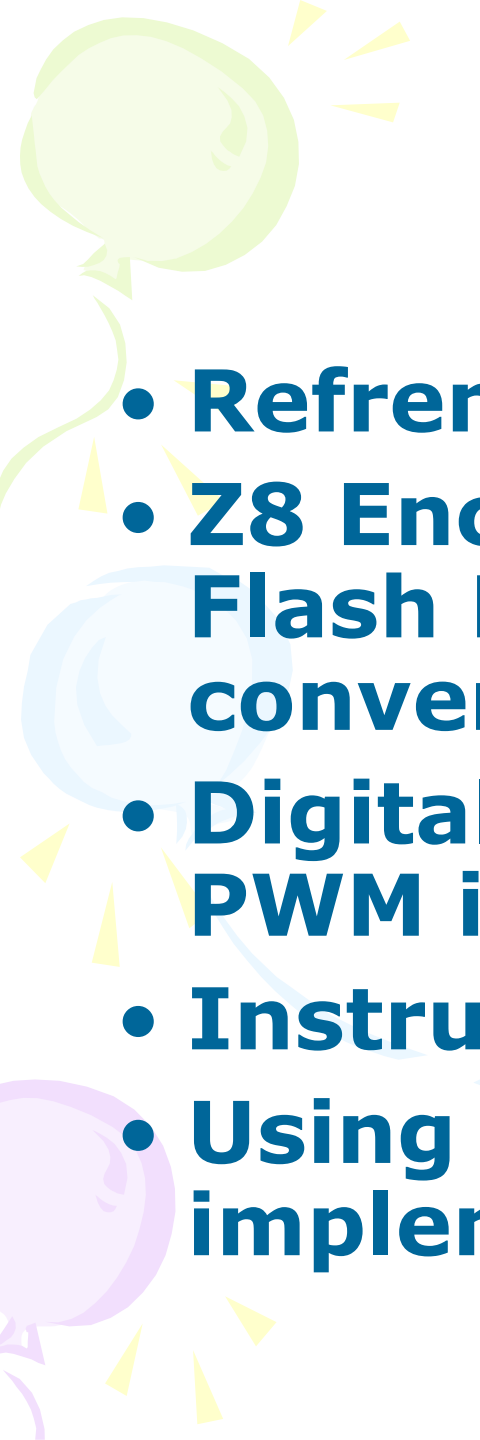






Yes



- 
- **References**
  - **Z8 Encore Microcontrollers with Flash Memory and 10-bit A/D converter application**
  - **Digital to analog converter using PWM in the Z8 Encore**
  - **Instructor slides**
  - **Using Z8 Encore for DMA-ADC implementation**



- Demo for PWM