

Pokemon Boba Black

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Overview

- You are a beginning Pokemon trainer. The game starts off by allowing you to select from 3 starter Pokemon. Afterwards, you will be placed in a map, where you can catch other randomized Pokemon. By defeating and capturing new Pokemon, you can earn coins which will allow you to buy items from the shop. In the shop you can buy boba drinks to increase your happiness. You win the game if you can get your happiness up to 100%! On the other hand, for each battle you lose, your happiness decreases. If your happiness goes to 0%, you lose the game.

Features

- Joystick to move around the map
- 2 buttons (A and B)
- Randomized chance to run into Pokemon with each step
- Different Pokemon types with different stats
- Earn coins from each battle
- Turn-based battles
 - HP status bar (for both Pokemon)
 - Different types of attack
 - Use items
 - Run
 - Swap Pokemon
- Shop to buy items
 - Pokeballs
 - Healing potions
 - Boba drink

Requirements

- Two buttons (A and B)
 - A for selection
 - B for menu stats display
- Three sprites on LCD display
 - User sprite moves according to user input
 - Pokemon sprite/opponent Pokemon sprite movement during attacks
- DAC generated battle sound effects
- Score(s) displayed on screen
 - Pokemon HP, coins, happiness level
- Two interrupt ISRs
 - SysTick ISR for ADC joystick
 - ISR to implement sound
- Two different Languages
 - English and Spanish

Ports/Pins Used

- Port A (LCD)
 - PA0 -
 - PA1 -
 - PA2 - pin 8 SCK: LCD (SSI0Clk)
 - PA3 - pin 6 TFT_CS: LCD (SSI0Fss)
 - PA4 -
 - PA5 - pin 7 MOSI: LCD (SSI0Tx)
 - PA6 - pin 4 D/C: LCD (GPIO)
 - PA7 - pin 3 RESET: LCD (GPIO)
- Port B (Sound DAC)
 - PB0 - DAC bit 0
 - PB1 - DAC bit 1
 - PB2 - DAC bit 2
 - PB3 - DAC bit 3
 - PB4 - DAC bit 4
 - PB5 - DAC bit 5
 - PB6 -
 - PB7 -
- Port C
- Port D
- Port E (Input values)
 - PE0 -
 - PE1 -
 - PE2 - External Button (B)
 - PE3 - External Button (A)
 - PE4 - ADC Joystick Vx
 - PE5 - ADC Joystick Vy
 - PE6 -
 - PE7 -
- Port F