Remple Tun Game

Thomas Lenges, Renuka Singh Virk

Systèmes Embarqués Microprogrammés

NDS features: checklist (1/2)

EPFL

- **ARM Processors**
  - ARM9: controls two screens, buttons (left/right arrows and L/R/Start/Select keys)
  - ARM7: controls touchscreen and audio
- **Timers / Interrupts**
  - Timer0 used for the game
  - Timer2 used to display 'Game Over' for 3s
  - Interrupt: Pressing KEY_SELECT
    in the menu => resets the game, in the game => brings back to menu
- **Graphics**
  - Intro, Menu, Game:
    Main in Mode 5 with BG 0 (Tiled Mode) | Sub in Mode 5 with BG0 (Tiled Mode)
  - Game over: Main in Mode 5 with BG 2 (Rotoscale Mode emulating Framebuffer)
- **Keypad**
  - Controlling of the player action: KEY_RIGHT / KEY_LEFT = Move the player
  - Return to menu / reset / start game:
    KEY_START = Start the game
    KEY_SELECT = Reset the game / bring back to menu
  - Buy next level:
    KEY_L = Buy level 1 ; KEY_R = Buy level 2

Touchscreen

- Allows the player to choose one of the three levels of the game

Sound

- Playing music module in a loop when entering the menu and when starting levels 2 and 3
- Playing sound effects (WAV format) when: touching coins/rocks, running (footsteps), entering/exiting a level (bubble sound)

Secondary Storage (optional)

- Not used

WiFi (optional)

- Not used

Sprites (optional)

- Main engine: player, coins, rocks, trees, cactus, camels, temples
- Sub engine: player to indicate progression, coins

(Trees, cactus, camels, temples are 64x64px, the rest is 32x32px)

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- **Final view/s of our project on the actual NDS device:**