Kart Mania

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Systèmes Embarqués Microprogrammés

NDS features: checklist (1/2)

- **ARM Processors**
  - ARM9 for A,B,L,Select, Start, D-Pad, Screens and IPC commands | ARM7 for Wifi, Sound and Touchpad

- **Timers / Interrupts**
  - Vblank : global graphics update (60Hz)
  - TIMER0 : handles the overall game "ticks" (physics, collisions, items etc..) (60Hz)
  - TIMER1: handles the race chronometer (1000Hz)
  - IRQ_KEYS: handles pause functionality during gameplay | (Start key press = Pause/Unpause)

- **Graphics**
  - Main screen : Mode 5 with BG2 (Ext. Roto) Settings BG | Mode 5 with BG2 (Ext. Roto) + Sprite for Homepage BG | Mode 0 with BG0 + BG1 (Tiled) for Map Select. BG | Mode 0 with BG0 (Tiled) + Sprites for Gameplay
  - Sub screen : Mode 0 with BG0 + BG1 (Tiled Mode) for Menus + UI | Mode 0 with BG0 + Sprites for gameplay timer/lap display + item icons

- **Keypad**
  - Car Movement (A = Accelerate | B = Brake | (Left | Right) = Steer | L = Use Item | Start = Pause | Select = Exit to Home)
  - Menu navigation (D-pad Cycling)
  - Pausing is handed via Keypad Interrupt

EPFL

- **Touchscreen**
  - Menu navigation in Homepage, Settings and Map Select.
  - Done via Polling
- **Sound**
  - 3 Sound effects used (CLICK = UI Nav. | DING = Settings toggle | BOX = Item box pickup)
  - Background music
- **Secondary Storage (optional)**
  - Storage and reading of user settings
  - storage and reading of personal best times
  - Factory reset file for settings
- **WiFi (optional)**
  - Multiplayer racing up to 8 players | New items added for more interaction
- **Sprites (optional)**
  - Main screen moving kart
  - In-game kart and items

- **Include an image with the final view/s of your project on the actual NDS device**