

# **Tetris Game**

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Systèmes Embarqués Microprogrammés

- **ARM Processors**

- ARM9 to control the two screens, the buttons and send IPC messages to the ARM7 to control the sound

- **Timers / Interrupts**

- Not used

- **Graphics**

- Main screen: Mode 0 with Backgrounds 0 and 3 (Tiled Mode)
- Sub screen: Mode 5 with Background 0 and 2 (Tiled and Ext. Rot. modes)

- **Keypad**

- Controlling of the Tetris block action :
  - KEY\_RIGHT / KEY\_LEFT = Move the block
  - KEY\_UP / KEY\_Down = Rotate the block
  - KEY\_A= Drop the block faster
- Reading Keypad by polling

## ■ Touchscreen

- Controlling of the Tetris blocks actions using 5 different positions in the touchscreen. (alternative to the keypad controls)
- Reading touchscreen by polling

## ■ Sound

- Playing music module in a loop when starting the game
- Playing 2 sound effects (WAV format) when moving/dropping a Tetris block

## ■ Secondary Storage

- Storing the highest score in a text file
- Reading the highest score from a text file

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

