Embedded Systems
Virtual Pet User Manual

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User instructions

Creating a new pet is easy - simply upload the application to the Arduino, and the game will start by itself. If a save exists, the option to load it will be presented.

The menus are designed with maximum intuitivity in mind, and when in game, it's easy to pick up the controls just by playing around with the buttons. The Arduino console is not necessary at any point.

To interact with your pet:

UP	Feed your pet.
LEFT	Play with your pet.
RIGHT	Evolve your pet.[1]
DOWN	Refresh the screen.
SELECT	Enter the PAUSE menu.

To navigate the PAUSE menu:

UP	Restart the game with a new pet.
LEFT / SELECT	Exit the menu (do nothing).
RIGHT	Save the current pet.
DOWN	Delete the current save.

After unlocking the final stage, press the RIGHT button to unlock the ending.

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[1] *Only available to Young pets at least eighteen seconds old or Adult pets of any age. Unique LCD message otherwise.*

Feature List

The specification was fully realised.

- Upon launch, the application will check for a save game. If none are found, a new game will be started.

- All described biometrics updated in real time: fullness, happiness, stage and age.

- The simulation timer only counts when on the main screen. When in the PAUSE menu, or when an output message is being displayed, the simulation is paused.

- All described development stages, plus an extension stage: Egg, Young, Adult, Mythic.

- When the Egg stage is completed, the age is reset to one second. Hunger and depression timers start only when the Egg stage is over.
    - fullness will be decremented every eleventh second.
    - happiness is decremented every seventh second.

- All described pet interactions: Feed, Play, Evolve.
    - Each interaction outputs a unique LCD message that differs based on the stage of the pet and the pet's happiness and/or fullness.

- PAUSE menu and LCD messages will suspend the simulation.

- All PAUSE menu functions available: Continue, Save, Delete Save, Start a new pet.

- Once the age reaches ten minutes, the simulation will end with a unique end message. By completing the Mythic stage, an alternative ending is unlocked.

Extended functionality

- Evocative flavor texts added.

- Thrilling storyline added.

- Creepy new development stage added, Mythic.

- Heartbreaking ending for a simulation timeout event added.

- Exciting ending for a Mythic stage completion event added.