

Application Note (Touchscreen Implementation)

Implementation

The touchscreen use has been implemented by first calibrating the screen to recognize the user input.

After the calibration process is completed, the user is able to correctly use the cuddle feature after the game starts.

To implement it, `TIMER_1IRQHandler` was initialized to 50 msec. This means that every 50 msec, the timer is triggered and the code inside the handler gets executed.

There is a portion of code that can verify if a specific area of the screen gets touched by the user; the extent of this area is equal to the space occupied by the character during the idle animation.

If this specific portion of the screen is touched, the cuddle animation is triggered and it lasts about 2 seconds. During this period, the RIT is disabled so that the user is unable to trigger the eating animation at the same time: this would otherwise cause confusion on what the character is actually doing and which values are changing between satiety and happiness.

During the animation, the periodic refresh of the statistics on screen only updates the values of age, happiness and satiety, leaving the character in a cuddled state.

Tips

Since the `TIMER_1IRQHandler` is disabled during a normal refresh of the screen to avoid conflict between animations, it's best if the character is touched as soon as the previous process finishes. In this way, the cuddle animation can be triggered reliably and no issues of priority should occur.