Written from a consultant point of view/5

Describes how tasks are used in the system/5

One task for reading user inputs. This task will wait for a certain time for the user to either move the joystick or press the cut button, saving the input to a variable.

One task for calculating next positions of items on screen and collisions. This task will first use the user input to determine whether to move the cursor or to initialize a cut. Next, the calculation of fruit movement will begin and new location values will be provided for all the fruit on screen based on their type and speed. The final step is the collision phase where any overlapping values will be found and the proper response chosen (i.e. fruit crosses cursor when cut is initialized and is destroyed, fruit crosses bottom of screen – trigger end game, etc.). These new computations will be mapped onto the LCD output array. There will be interrupts that will be used to capture the users action. Furthermore, each of the peripheral will be used as an interrupt (no polling behaviour will be adopted).

One task will be used to keep track of score, speed rates for the fruits.

One task for print to the LCD. This final task prints to the LCD display the updated game state, or it prints game over/game won depending on responses determined in previous task.

Describes how selected peripherals (INT0, LED, joy stick and potentiometer) are used/5

The cursor can move left/ right using a joystick. The user can then use the INT0 button to cut the fruit and increase points. The LED will flash in the beginning and the end of the game. The point system will be updated using binary numbers.

Describes the operation of the game /5

Colored fruits will be dropping from the top of the screen at different rates, and the user must cut the fruit. Different colored fruits fall at different speeds and award different points. There will be a maximum of 5 fruits on the screen at once. The user can cut fruit by pressing the INT0 button when the cursor and fruit overlap. The game ends when fruit crosses the bottom of the screen or when the maximum number of point is scored (The number of points is to be determined).