

## Graphics Demo with Alpha Blending Feature

### Hardware Requirements:

1. Use PIC24FJ256DA210 Development Board
  - a. JP23 – set to PMCS2-PARALLEL
  - b. JP13 – RG8-S1
  - c. JP14 – RE9-S2
  - d. JP15 – RB5-POT
  - e. JP8 – closed
  - f. JP6 – closed
  - g. JP5, JP7 – open
  - h. JP16 – USART\_TX – TX
  - i. JP17 – USART\_RX – RX
  - j. JP9, JP10 – 1-2
  - k. JP11 – 2-3
  - l. JP12 – 2-4
2. Use Graphics Display Powertip 4.3" 480x272 Board

### Programming Instructions:

Here are the necessary files to run the demo:

1. ParallelFlash\_ExternalResource.hex – hex file to program the parallel flash through UART
2. AlphaBlendDemo\_DA210DevBoard\_WQVGA.hex – hex file of the firmware

### *To program the Parallel Flash:*

1. Program the DA210 with the firmware hex file.
2. After reset, the firmware will check for the correct hex file in the parallel flash. When it is not present it will prompt for parallel flash programming.
3. Open the "memory\_programmer.jar" and load the parallel flash hex file.
4. Select the UART (or Serial) connection in the jar program with the correct COM.
5. Don't send the data yet. Before hitting "Start Programming" button on the jar program, press S2 on the DA210 Dev Board.
6. After pressing S2 the screen may go blank or display some random lines. This is ok.
7. Now hit the "Start Programming" button on the jar program.
8. The parallel flash should start programming.
9. When programming finishes, the PIC device should reset automatically.
10. The first screen after programming will be the touch screen calibration.
11. Follow the calibrate instructions and you will see the demo come up.

## Demo Overview

The demo is composed of two main screens. Main Screen 1 contains 6 icons that lead to sub-demos. Main Screen 2 contains 4 icons that lead to sub-demos.

Demo Screen Shots:



Main Screen 1



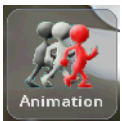
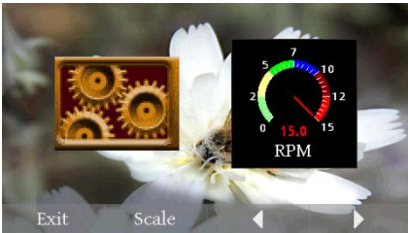

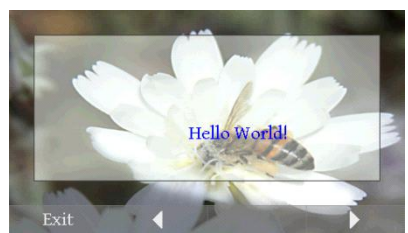


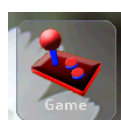
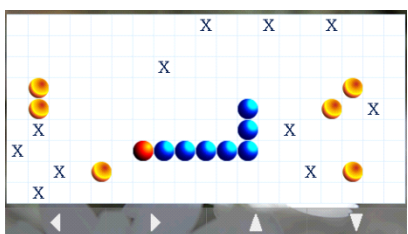

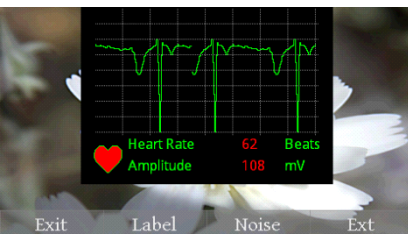


Main Screen 2

Navigate to each main screen using the left or right arrows. Pressing on the “Demo” button will launch a demo mode where selected screens will be animated.

Press and release on each icon to go to each sub-demo. The “USB Drive” demo can only be launched when there is a USB Thumb Drive connected to the Development Board USB Host connector.

## Main Screen 1

## Main Screen 2

