PSoC 4 Pioneer Kit Community Project#010 – LCD with Rotating Cube

Today's example project uses the a Sparkfun Graphical LCD Display and the custom GLCD component detailed in Example #09. This example project uses the GLCD component to display a rotating 3D cube and supports menu items for changing certain aspects of the displayed cube on the LCD screen. This example also makes use of the Annotated Library for the Pioneer Kit detailed in example #03 on the Element14 100 projects in 100 days web page.

http://www.youtube.com/watch?feature=player_embedded&v=EAYkytcOy-A

Forum Post Attachments:

At the bottom of this post we are including the following items:

- Example Project Zip File
- Zip File of Images
    - Project Schematic
    - Component Configurations

Components Used:

The user can download the example project at the bottom of this post. The project uses the following list of Creator Components:

- Custom GLCD
- Annotated Library for Pioneer Kit

The components are configured by right clicking on the component in your Top Design schematic view and selecting **Configure**. Please enable the following selections in the Configuration windows for the listed components above.

Firmware Description:

The main.c firmware is included in the example project. Please review the commented sections for more details.

This example project uses the custom GLCD component to display a rotating cube on the sparkfun LCD shield. The code supports additional menu selections to change certain aspects of the rotating cube. The user can use the SW2 switch on the Pioneer Kit to access certain menu options. The menu options affect the scale, perspective, and rotation of the cube. Buttons S2 will increase the menu value while button S3 will decrease the value. The S1 button will reset the menu item to the original configuration.

Hardware Connections:

There are no hardware connections outside of connecting the Graphics LCD Shield to the Pioneer Kit.

Test Your Project:

Once the kit is programmed with the example project LCD screen will display the spinning cube.

I hope this example can help you out in your design.

http://www.element14.com/community/message/76565