

PSoC 4 Pioneer Kit Community Project#07 – Danger Shield with 7 Segment LED Display

Today's example project uses the "Danger Shield" which includes a list of hardware features such as three large sliding potentiometers, LEDs, LDR light sensor, push buttons, buzzer, and a small 7 segment LED display. The example and descriptions are included in this post.

This example project uses the 7 segment LED display along with one of the Linear Potentiometers. The user will slide the potentiometer and the PSoC 4 will read the voltage value, scale that value and then display the value on the 7 segment display.

Forum Post Attachments:

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

- Example Project Zip File
- Zip File of Project 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:

- ADC SAR
- CyPin

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 makes use of the large A0 Linear Potentiometer. The user can slide this potentiometer back and forth (adding an evil scientist cackle not necessary, but encouraged). The PSoC 4 will then use the ADC SAR component to read the voltage output from the A0 potentiometer and then scale that value and output the scaled value to the 7 segment LED display included on the Danger Shield board.

Hardware Connections:

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

Test Your Project:

Once programmed with this project, you can slide the A0 potentiometer to see the output on the 7 segment LED display.

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

<http://www.element14.com/community/message/76076>