AFE OLED (4-2)

Welcome back to Cypress Academy, PSoC 6 101. In this chapter we’re going to continue looking at some other cool capabilities of the PSoC 6 MCU using the xxx AFE board we looked at in the previous video. This time, let’s take a look at the OLED display and create a project with PSoC 6 controlling it.

[Why OLED displays]

[What we’re going to play with and see]

Let’s start by cloning the previous potentiometer project and let’s rename it to “AFE Shield OLED”.

[Setup PSoC Creator schematic]

Double click on the pins file under the design wide resources and assign the signals for the OLED control lines as xxx.

We’re going to use the Cortex-M4 to interface and write to the OLED display. First we’ll do a simple “hello world” test to make sure everything’s working and then update that project to display the values of the potentiometer. So, in the M4 main application file let’s start by xxx. [Firmware design]

And that’s it, now time to build, program and test it.

If everything is working, then you should now see “Hello World” printed on the display…pretty cool right? Ok, fairly simple so let’s add some more meaningful data to the display.

Back in the Cortex-M4 main application file, let’s add the firmware to take the potentiometer results and write it to the OLED display.

[Firmware design]

And again, now build, progam and test.

Now as I adjust the potentiometer you can see the results updating in real-time on the display…now that’s much cooler! In the next video, we’ll add another analog sensor, the ambient light sensor to the project and see how that works.

You can post your comments and questions in our PSoC 6 community or as always you are welcome to email me at alan\_hawse@cypress.com or tweet me at @askioexpert with your comments, suggestions, criticisms and questions.