

Chapter 2 - Introduction

Welcome to Chapter 2 of Cypress Academy, WICED WiFi 101. In order to build an IoT device, you essentially only have two jobs,

Number 1: you need to Read and Write data from the GPIOs, or the UART, or the SPI, or the I2C or whatever, and then

Number 2: you need to send it to the cloud. This next set of videos is focused on using the MCU peripherals that are built into WICED. In other words, making your IoT device interact with the world around it.

When I teach this class in person, the final project is a weather station... like this one. To build this, your IoT device must act as an I2C master to talk with the PSoC 4 Analog Coprocessor. It contains the temperature and humidity, which then you broadcast to the cloud. It must also be able to act based on the user button presses (GPIOs). In other words, it needs to get off the internet and do something in the actual real world! Actually, the 43907 is perfectly capable of doing both jobs at the same time because it has a very highly-powered ARM Cortex R4.

When you look at chapter 2 in the textbook you will find:

1. A discussion of the scheme we use for board support package... which we call the platform files,
2. An introduction to the “platform function” section of the documentation,
3. The process that you follow to create new projects,
4. A discussion of GPIOs, the PWMs, Debug printing, the I2C, the UARTs, and finally,
5. The exercises for the class.

As you go through this online class, I think that there are two ways you can do it.

1. You can watch the introduction videos, then read that section of the textbook, and then do the exercises, then watch the videos if you get stuck.

Or

2. You can watch each video and follow along as I take you through the exercises.

Either way is fine and you should do what works best for your own learning style.

You can post your comments and questions in our WiFi developer community on cypress.com, or, as always, you are welcome to email me at alan_hawse@cypress.com or tweet me at [@askiotexpert](https://twitter.com/askiotexpert)

Now, onto the platform files.