

Lesson 2-2 Creating a New Project

Hi, I'm Alan Hawse. Welcome back to Cypress Academy, WICED WiFi 101. In this video I will talk about how to create a new project from scratch. In most cases, you will probably copy an existing project to a new name and then make your changes – but for now, let's start with a brand new project.

As you may recall from a previous video, all of your projects go under the “apps” folder inside of WICED Studio. To start the process I'll create a new folder under apps called “ww101” which will hold the example projects for this series of videos. Then, I'll create a subfolder under that called “02” to hold the chapter 2 projects. Finally, I'll create a project folder called “02_blinkled”.

The folder 02_blinkled is also the name of the new project. Inside that folder I need to create 2 files; one called 02_blinkled.c, and the other called 02_blinkled.mk.

02_blinkled.mk is the makefile for my project. It MUST have the exact same name as the project folder. If not, the make process will not work correctly.

The makefile contains information used by the make process to build your project. In this case, we just need to specify a unique application name and the name of the C source file.

The application name in the makefile **MUST BE UNIQUE ACROSS ALL OF YOUR PROJECTS IN THE ENTIRE WORKSPACE**. Let me say that again ... **MUST BE UNIQUE ACROSS THE ENTIRE WORKSPACE** ... I would highly recommend that you use the full path to your project folder as the name of your application as this will guarantee your application has a unique name. If your name is not unique, you will get errors from the make process that will be hard to figure out. Believe me. I know.

There are other things that will go in the makefile for more complex projects, and I will cover those things in later videos.

The 02_blinkled.c is the C source file for your project. For now I will add just the bare minimum to get WICED started, and then I'll add more interesting functionality in the next video. The four things I need are:

1. An include of wiced.h, which gives us access to all of the WICED API functions.
2. A function called application_start which you can think of as main for your project, and it's called immediately after WICED boots.
3. A call to wiced_init which does all of the required initialization steps for the chip.
4. And finally, an infinite loop that will contain your actual application.

While we're at it, let's create a make target for this project just like I showed you in a previous video. Create a new make target, or make a copy of an existing one, so that you will end up with a make target that looks like:

ww101.02.02_blinkled-CYW943907AEVAL1F download run

At this point you could program this project onto the board ...obviously It wouldn't do much interesting yet. But, in the next video, I'll show you how to add the code to use the LEDs and the buttons that are on your development board.

You can post your comments and questions in our WiFi developer community on [cypress.com](https://www.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). Thank you.