# Chapter 1: Tour of WICED WiFi

## Objective

After completing chapter 1 you should understand a top level view of all of the components of the WICED ecosystem including the chips, modules, software, documentation, support infrastructure and development kits. You should have WICED installed and working on your computer. In addition, you will have completed your first project, successfully programmed and verified its functionality.

## Time: 2 Hours

## Fundamentals

### Tour of WiFi SDK

#### Eclipse

#### Directories

App

Doc

Platform

Libraries

Resources

Tools?

Include?

Build?

### Tour of Documentation

In the SDK

On the Web

### Tour of the Website

#### Forum

### Tour of WiFi

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **IEEE Standard** | **Bandwidth** | **Frequency** | **Channels** | **Channel Width** | **MIMO/SISO** | **Range** |
| [802.11a](https://en.wikipedia.org/wiki/IEEE_802.11a-1999) | 54 Mbits/s | 5 GHz |  |  |  |  |
| [802.11b](https://en.wikipedia.org/wiki/IEEE_802.11b-1999) | 11 Mbits/s | 2.4 GHz |  |  |  |  |
| [802.11g](https://en.wikipedia.org/wiki/IEEE_802.11g-2003) | 54 Mbits/s | GHz |  |  |  |  |
| [802.11n](https://en.wikipedia.org/wiki/IEEE_802.11n-2009) | 600 Mbits/s | 2.4GHz / 5 GHz |  |  |  |  |
| [802.11ac](https://en.wikipedia.org/wiki/IEEE_802.11ac) |  |  |  |  |  |  |

### Tour of Chips

4343W + 43438

4390x (43907, 43903, 4390)

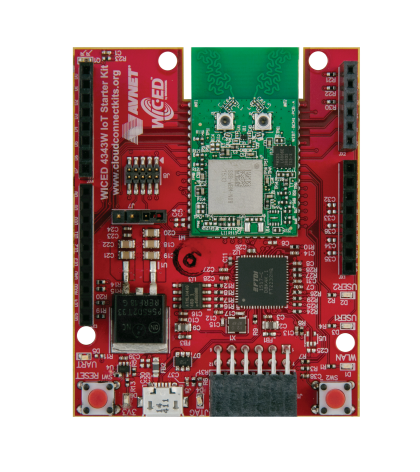
43362 + 43364

### Tour of Modules

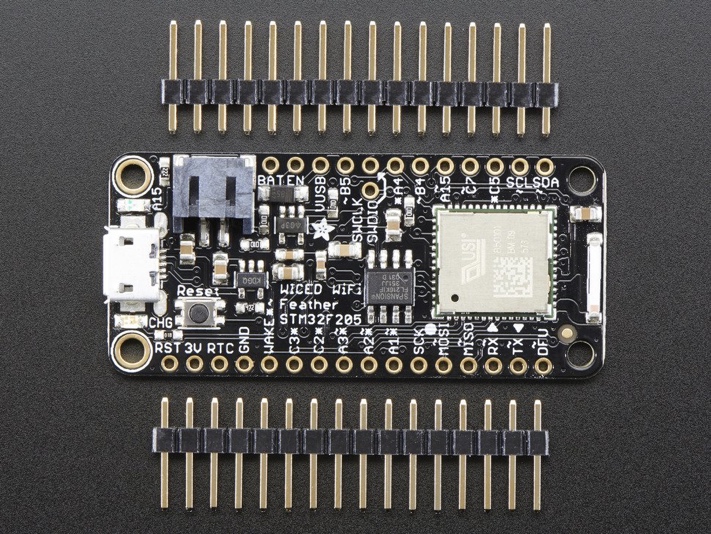
### Tour of Development Kits

#### Broadcomm Eval Kits

#### [Avnet Cloud Connected Kits](http://cloudconnectkits.org/product/avnet-bcm4343w-iot-starter-kit)



#### [Adafruit Feather](https://www.adafruit.com/products/3056)



#### [Electric Imp](https://www.electricimp.com/)

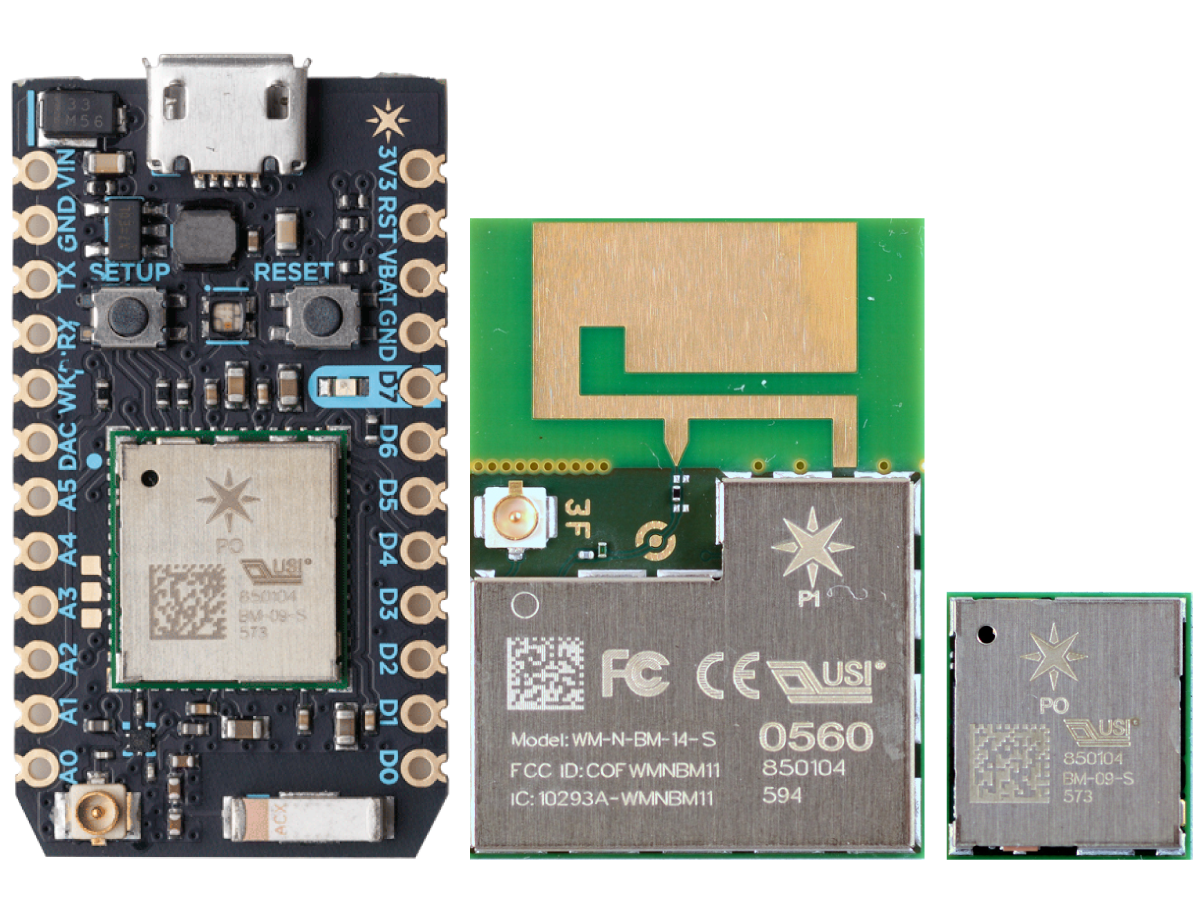
<https://www.electricimp.com/docs/attachments/hardware/product%20briefs/Electric_Imp_imp003_Product_Brief_02May2016.pdf>

<https://www.electricimp.com/docs/attachments/hardware/product%20briefs/Electric_Imp_imp005_Product_Brief_02May2016.pdf>

#### [Inventek](http://www.inventeksys.com/)

#### [Particle](https://www.particle.io/)

[Photon](https://www.particle.io/products/hardware/photon-wifi-dev-kit)



### Example first project

Make a new project

Copy the folder snip/gpio to be snip/arhtest

Rename gpio.c to arhtest.c

Rename gpio.mk to arhtest.mk

Edit gpio.mk

Add a make target - "make config"

Add a make target "snip.arhtest-BCM94343WWCD1 download run"

## Exercise(s)

### Redo example first project

### Create a forum account

### Open the documentation