The FreeRTOS SDK software package provides software APIs with ready-to-run firmware examples to support quick evaluation and development with Talaria TWO.

Applications: Production ready example applications which the user can run on Talaria TWO. Following applications are available in the release package:

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| **Protocol** | **Description** |
| alarm | Describes alarm functionality in Talaria TWO |
| helloworld | Basic helloworld application |
| ssbl | Demonstrates running and switching between multiple applications on Talaria TWO using SSBL |
| stw\_multi\_proto | Serial to Wi-Fi application used in hosted mode of operation |
| gordon.elf | Flashing utility using UART interface |
| fota | Demonstrates the FOTA (Firmware Over The Air) process |
| iot\_aws | Demonstrates using Talaria TWO board and the SDK with Amazon Web Services (AWS) IoT |

Examples: Demo/sample applications that the user can run on Talaria TWO firmware. Following examples are available:

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| --- | --- |
| **Protocol** | **Description** |
| alexa\_ready | Demonstrates the use of AWS IoT Embedded C Device SDK available on Talaria TWO to interact with the Device Shadow Service on AWS IoT Core |
| adc | Example for using the Analog to Digital Convertor (ADC) peripheral of Talaria TWO modules |
| at\_custom\_cmd | Demonstrates custom AT commands which the user can use apart from the standard commands |
| ble\_beacons | Example codes describing the basic concept of Eddystone Beacon   * Eddystone UID * Eddystone URL * Eddystone TLM |
| ble\_wifi\_bridge | Example code for receiving a text message from a connected BLE client and publishing it to a CloudMQTT broker |
| chip\_monitor | Describes the application for fetching the changes in the values of device core temperature, Voltage of VBAT, external ADC and estimated current consumption of Talaria TWO device |
| crash\_handling | Example code for using the crash handler API to handle and debug error cases |
| gpio | Example codes to use the GPIO interface. the interface for GPIO |
| http\_client | Example codes for using HTTP client APIs to connect to HTTP servers in secured (HTTPS) and non-secured way |
| i2c | Demonstrates usage of I2C on Talaria TWO |
| i2s\_audio | Example codes for using I2S peripheral of INP1010/INP1011/INP1012/INP1013 Talaria TWO modules for playing audio |
| ifttt | Example application for using Talaria TWO with IFTTT |
| lp\_scan | Demonstrates the basics of the Low Power Wi-Fi scan feature |
| lp\_uart | Example codes describing the use of UART APIs |
| mdns | Demonstrates using the mDNS APIs provided by the mDNS module |
| mqtt | Example codes for using the publish/subscribe operation of MQTT in both secured and non-secured modes |
| prov | A demo Provisioning application using BLE for provisioning AP credentials at Talaria TWO from a mobile application |
| pwm | Demonstrates usage of Pulse Width Modulation peripheral of INP1010/INP1011/INP1012/INP1013 Talaria TWO modules |
| radio\_module\_params | Describes using the Radio and Module parameters on the Talaria TWO module |
| secure\_files | Example application for reading and writing encrypted files from/to the filesystem |
| socket\_wakeup | Demonstrates the basics of sleep management (Talaria TWO wake-up from sleep mode) |
| spi | Demonstrates the usage of the Software SPI Master (SSM) on Talaria TWO |
| unassoc | Example codes describing Wi-Fi un-associated mode transmission APIs available in the SDK, call-back events, notifications and associated data structures |
| using\_ble | Introduction to BLE APIs through code samples consisting of a server and client application |
| using\_filesystem | Demonstrates using the filesystem APIs to show case the filesystem functionalities on the Talaria TWO EVK |
| using\_sntp | Demonstrates fetching time from NTP server using SNTP |
| using\_wifi | Example codes describing the Wi-Fi connection manager APIs |
| watchdog\_timer | Demonstrates managing Talaria TWO watchdog timer using the functions provided by the watchdog driver |
| wcm\_multi\_ap | Demonstrates the application example of Wi-Fi Connection with Multi-Access Point (WCM\_MULTI\_AP) |
| wcm\_pm | Demonstrates the Wi-Fi Connection Manager power management APIs |
| websocket | Demonstrates using the WebSocket client APIs provided by the WebSocket module |