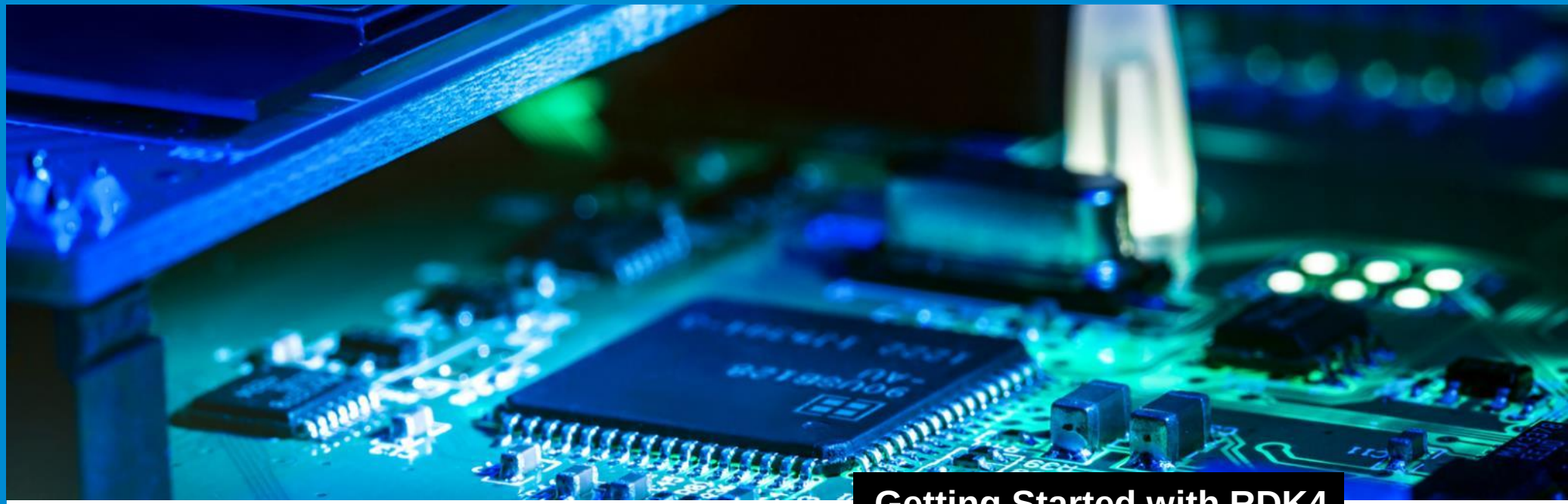

Getting Started with RDK4

Getting Started with CY8C4149AZE-S598 Development Platform – **RDK4**

Registration & Download

1.) Register or/and login to the Infineon website, press on „myInfineon“ tab.
https://www.infineon.com

2.) Download and install the latest ModusToolbox™ software.

3.) [Optional] Download and install yours prefered terminal emulator, for example: PuTTY, Tera Term, etc.

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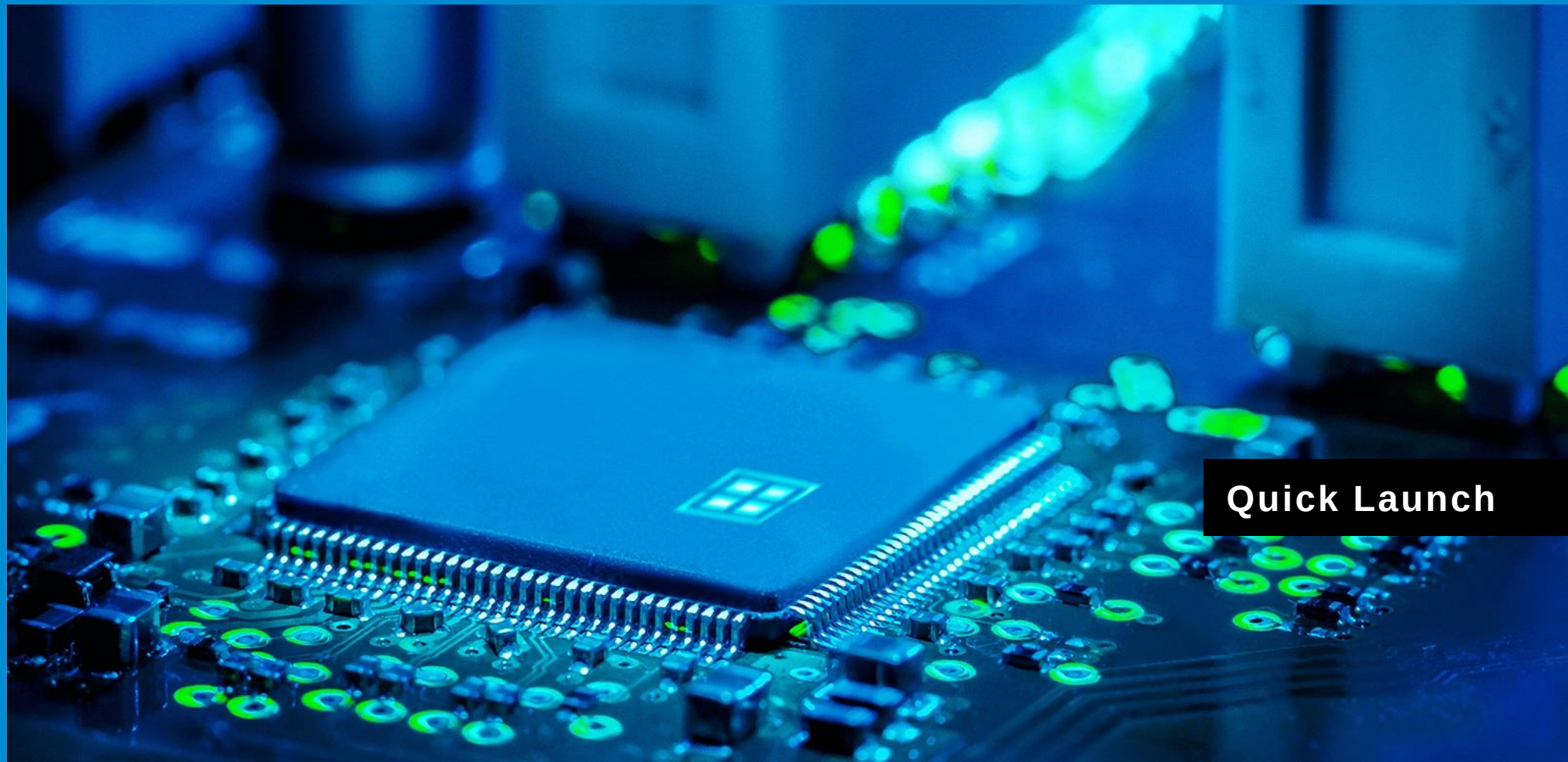


Quick Launch

Connect the RDK4 to your PC.

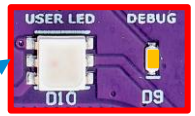
Look for the USB-C socket with a marking “KitProg3”

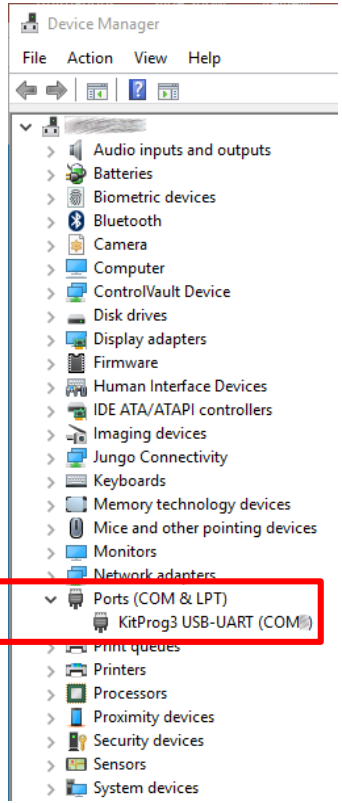
Have a USB Type-C cable

Connect it with your PC

Check if the RDK4 is ready.

“DEBUG” Yellow LED must shine constantly.

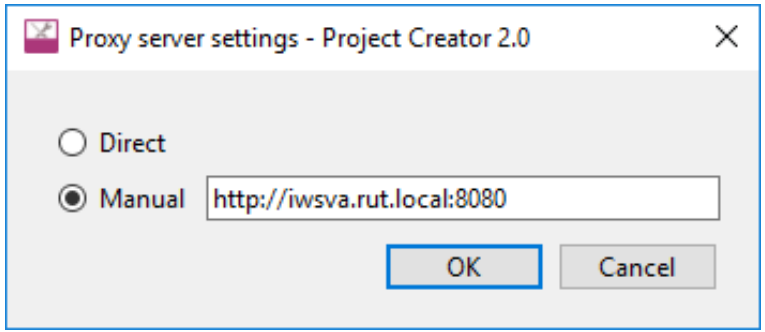




The “KitProg3” must be seen in the “Device Manager” window.

If you are working with your personal PC, (not the Rutronik provided Laptop PC) please skip this setup.

Open the File→New→ "ModusToolbox Application" → Settings → Proxy server settings and enter the proxy address: http://iwsva.rut.local:8080



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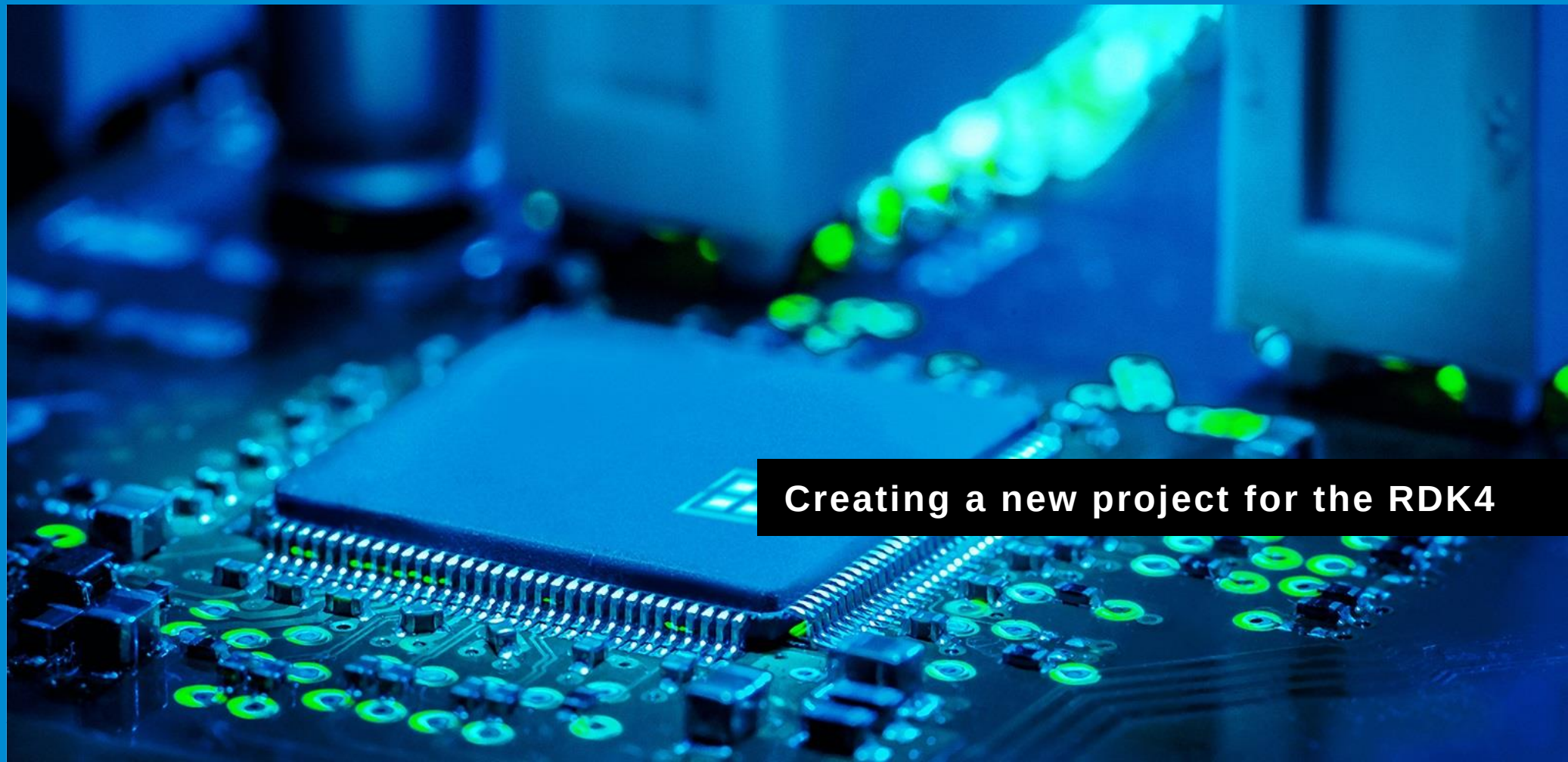


Creating a new project for the RDK4

Creating new projects with “Project Creator” tool

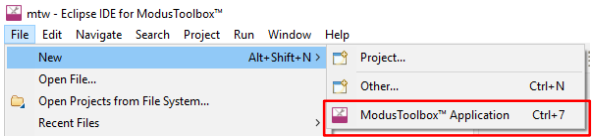
1.) Open the “Project Creator” tool: File → New → ModusToolbox™ Application

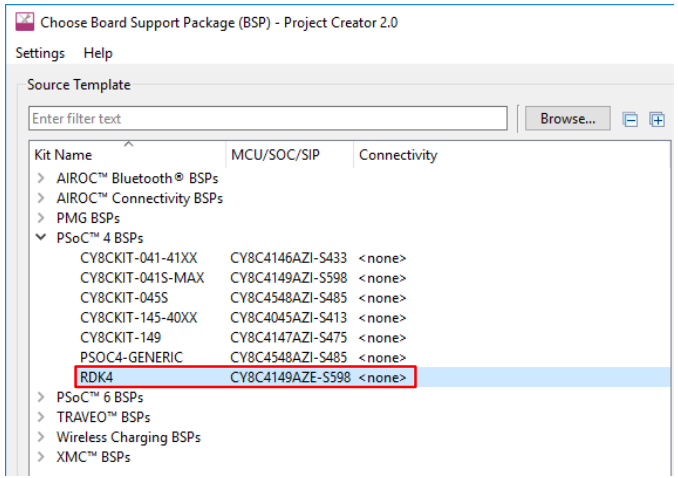
2.) Select the “RDK4” BSP. It is in PSoC™ 4 BSPs list.

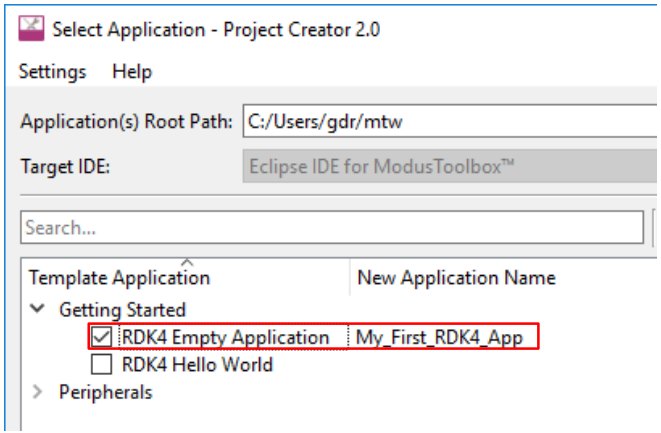
3.) Click on “Next”.

4.) Select a “RDK4 Empty Application” in a “Getting Started” category. Name it “My_First_RDK4_App”.

5.) Click on “Create”.







Creating new projects with “Project Creator” tool

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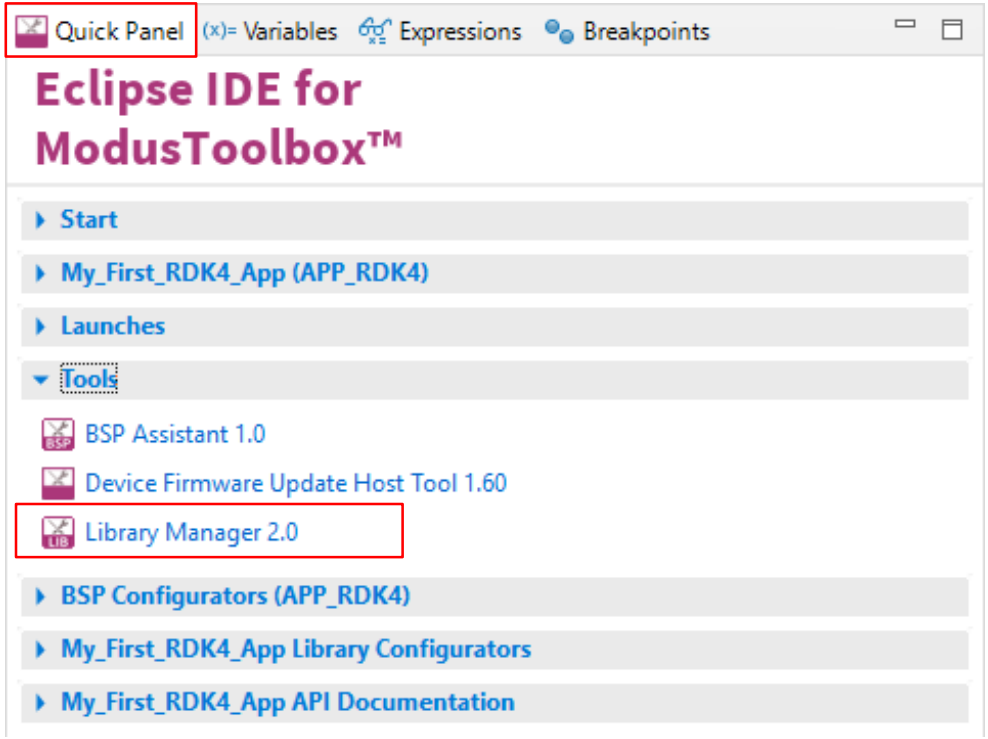
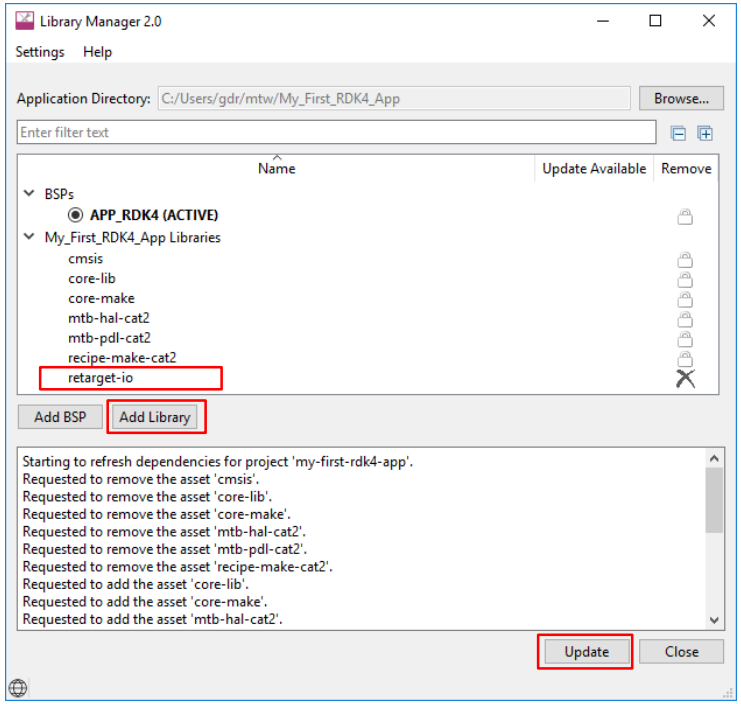
6.) Include the “retarget-io” library in a “Library Manager” tool and press “Update”.

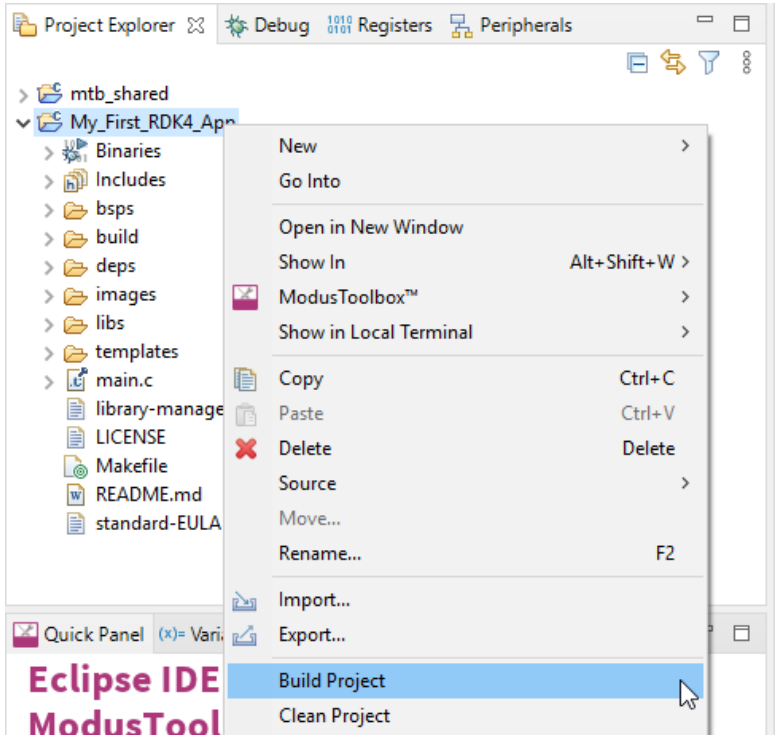


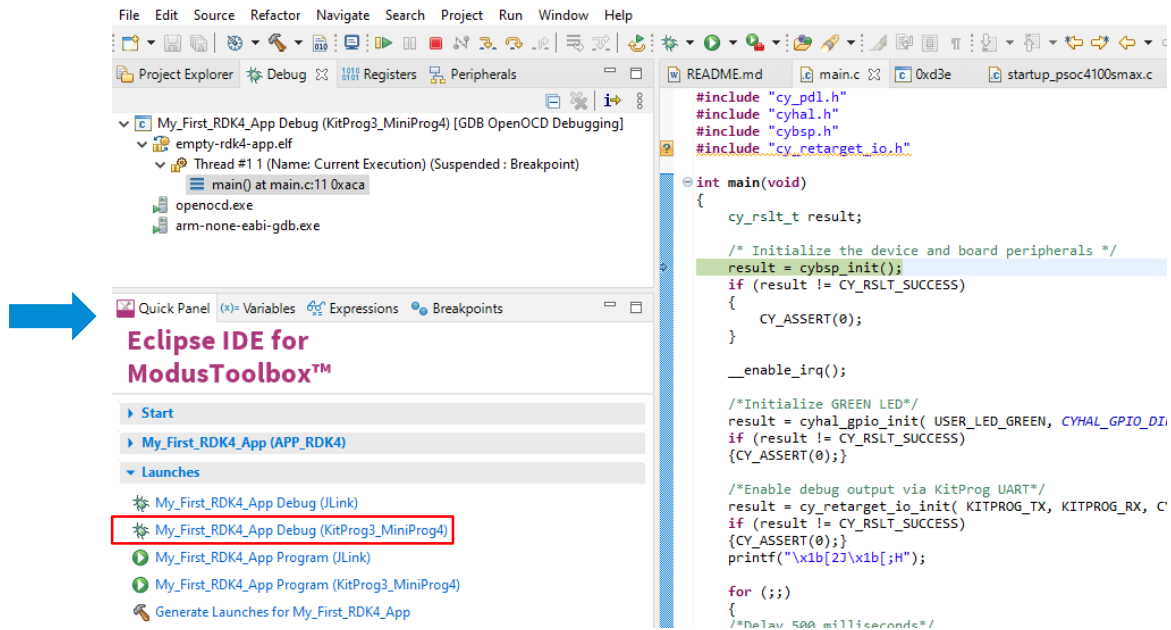


7.) Copy/Paste and save the code example to the “main.c” file.

```
#include "cy_pdl.h"
#include "cyhal.h"
#include "cybsp.h"
#include "cy_retarget_io.h"

int main(void)
{
    cy_rslt_t result;

    /* Initialize the device and board peripherals */
    result = cybsp_init();
    if (result != CY_RSLT_SUCCESS)
    {
        CY_ASSERT(0);
    }

    __enable_irq();

    /*Initialize GREEN LED*/
    result = cyhal_gpio_init( USER_LED_GREEN, CYHAL_GPIO_DIR_OUTPUT, CYHAL_GPIO_DRIVE_STRONG, CYBSP_LED_STATE_OFF);
    if (result != CY_RSLT_SUCCESS)
    {CY_ASSERT(0);}

    /*Enable debug output via KitProg UART*/
    result = cy_retarget_io_init( KITPROG_TX, KITPROG_RX, CY_RETARGET_IO_BAUDRATE);
    if (result != CY_RSLT_SUCCESS)
    {CY_ASSERT(0);}
    printf("\x1b[2J\x1b[;H");

    for (;;)
    {
    /*Delay 500 milliseconds*/
    Cy_SysLib_Delay(500);
    printf("Powered by RUTRONIK.\r\n");
    cyhal_gpio_toggle(USER_LED_GREEN);
    }
}
```

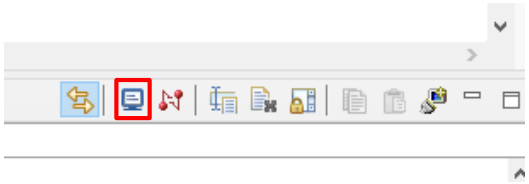
8.) Build and Debug the active project.

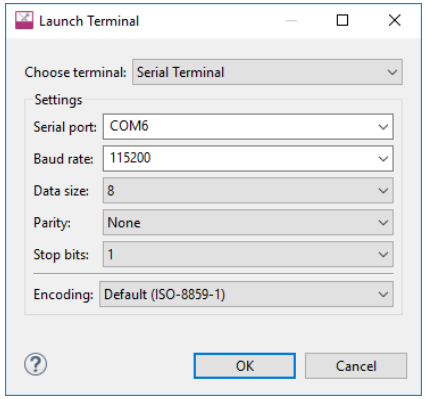


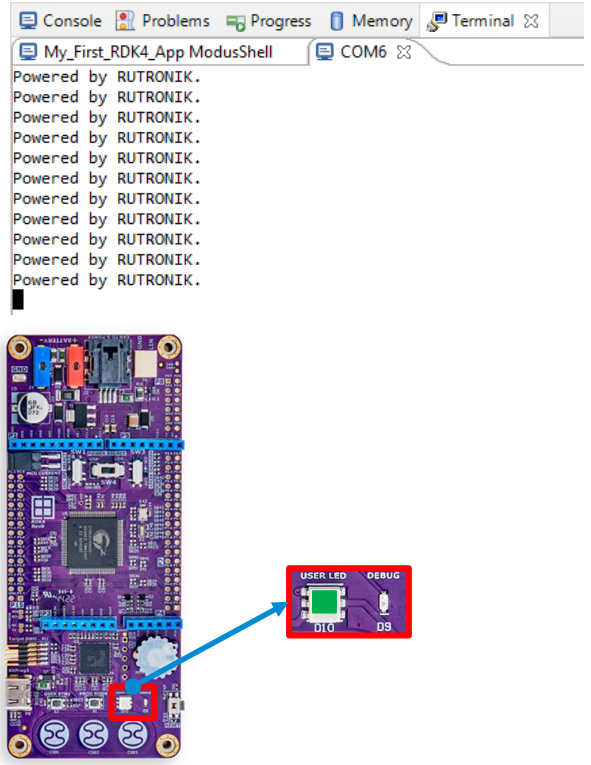


Creating new projects with “Project Creator” tool

The final result is a blinking GREEN LED on the RDK4 board and text on the terminal window:







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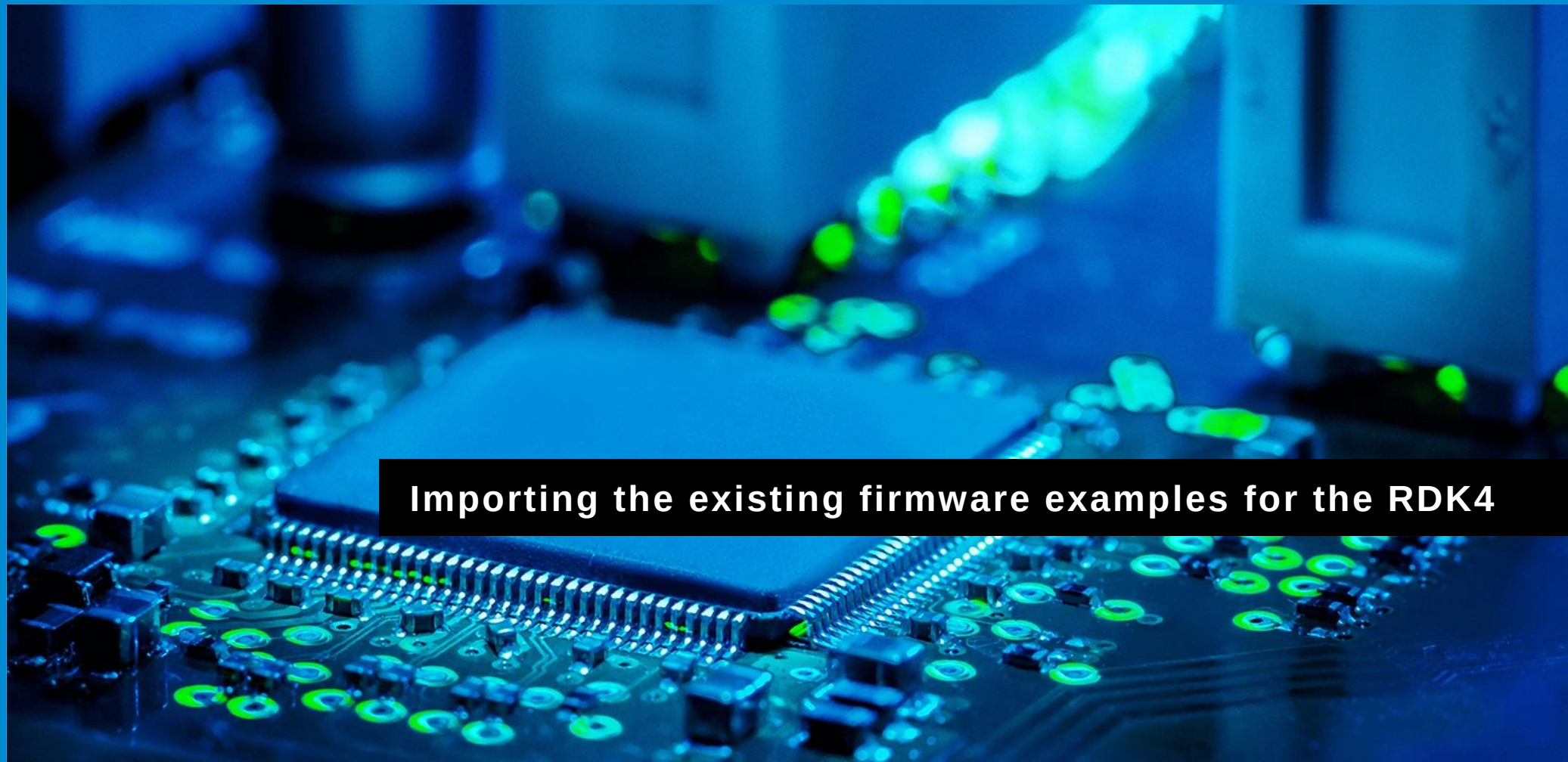
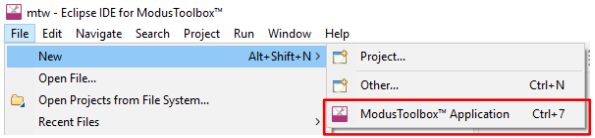
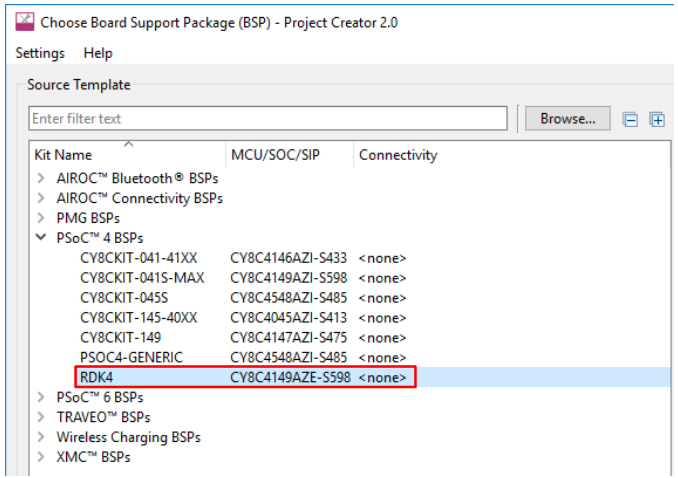


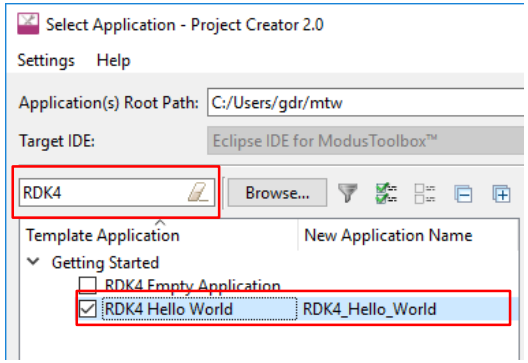
Importing the existing firmware examples for the RDK4

Importing firmware examples with “Project Creator” tool

1.) Open the “Project Creator” tool: File → New → ModusToolbox™ Application
2.) Select the “RDK4” BSP. It is in PSoC™ 4 BSPs list.
3.) Click on “Next”.
4.) Write a “RDK4” in a Search… window. Select the example from given categories list.
5.) Click on “Create”.

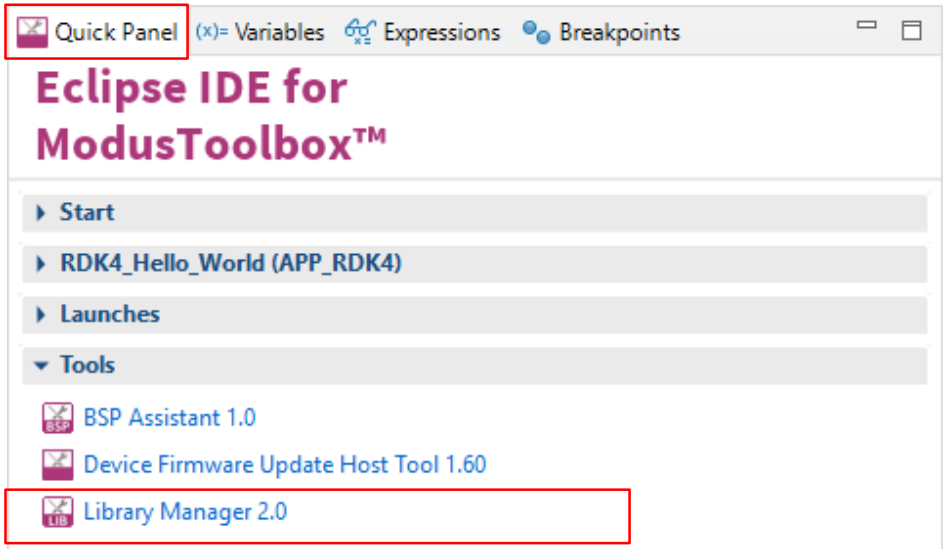


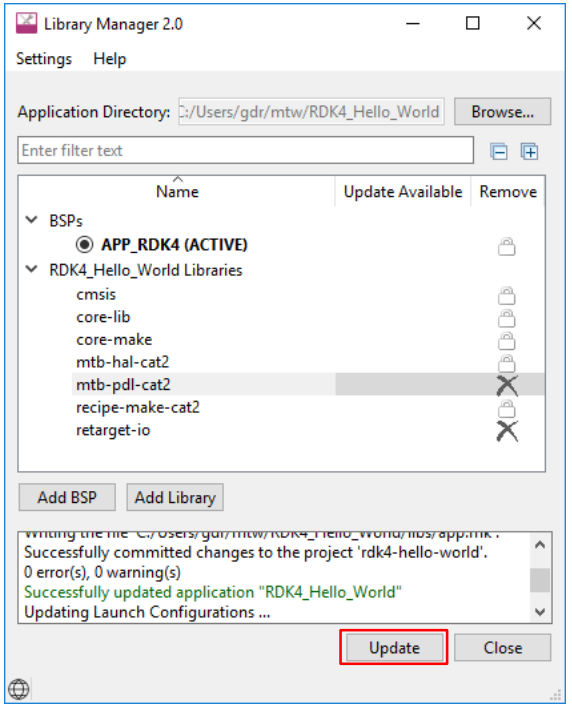




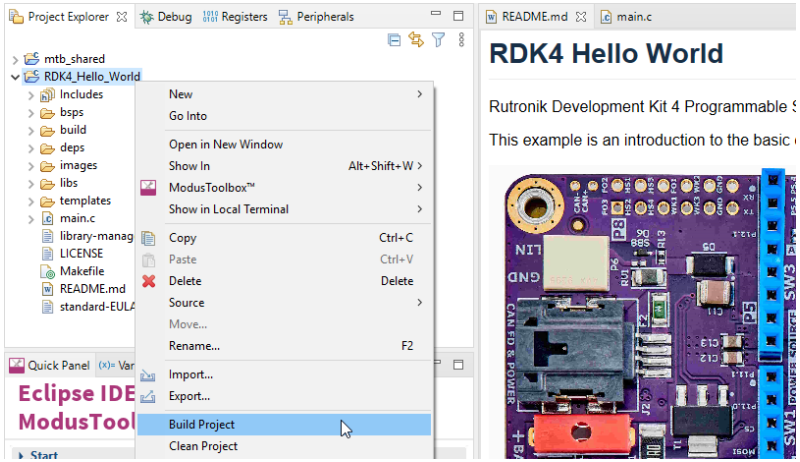
Importing firmware examples with “Project Creator” tool

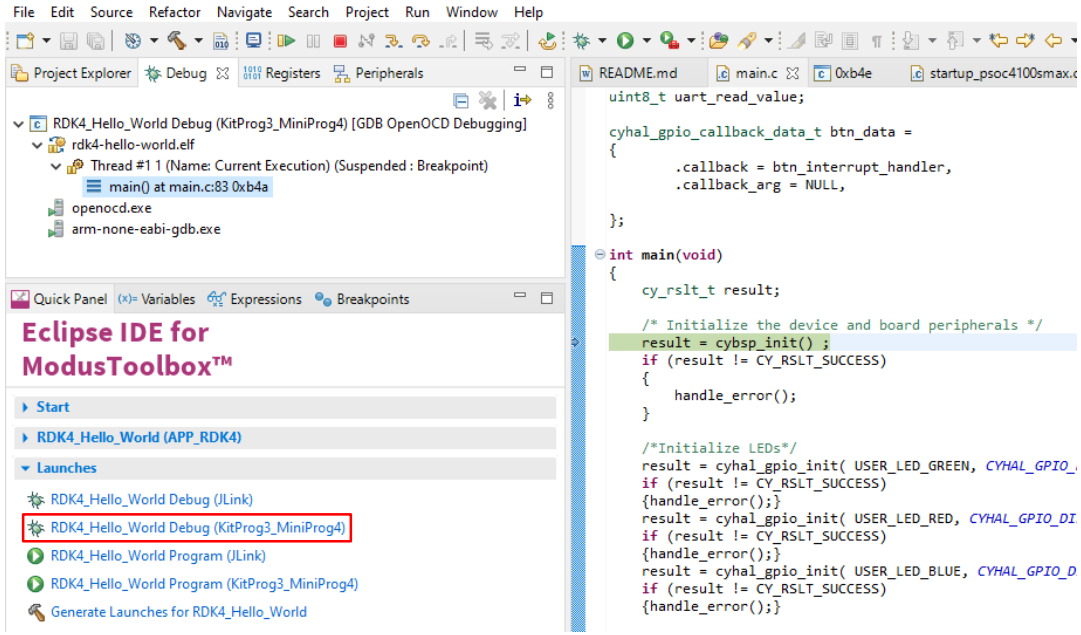
6.) After project creation is finished - update libraries with “Library Manager” tool.



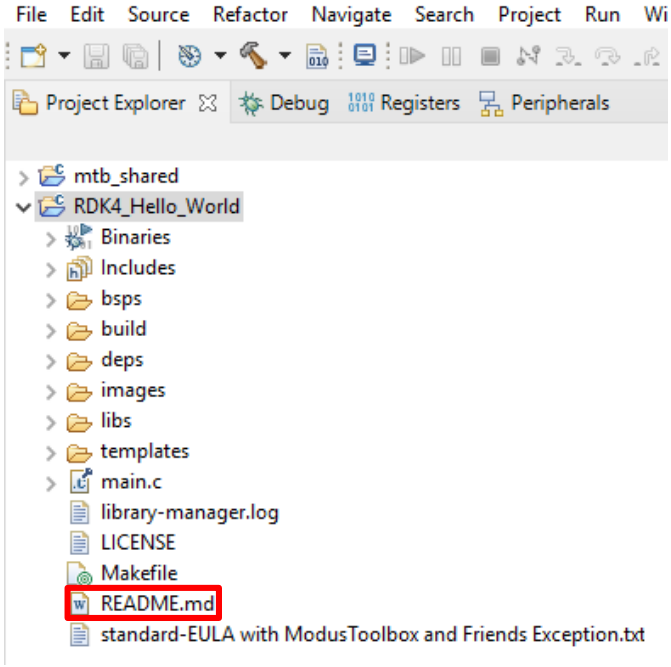


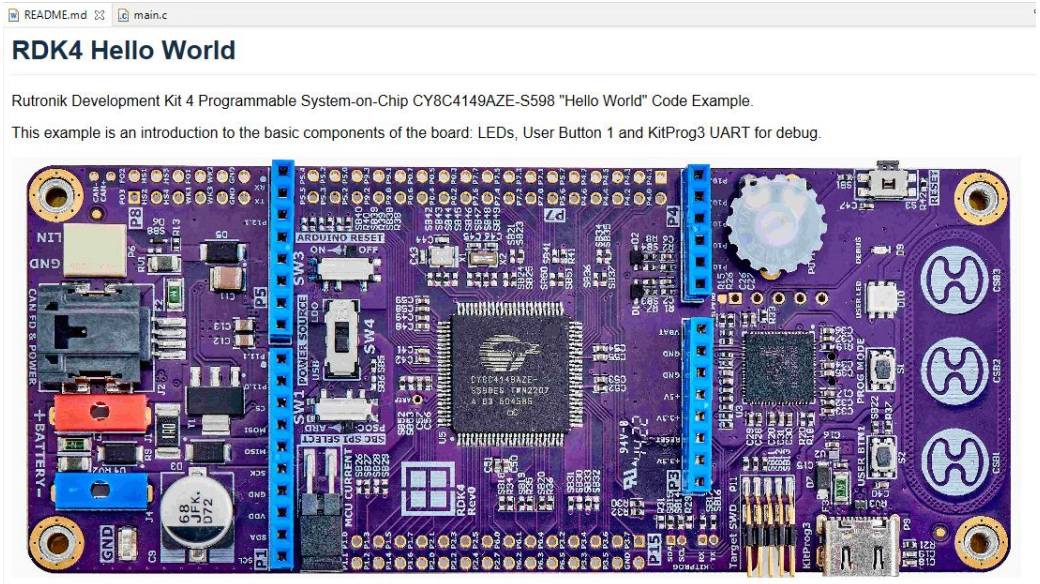
7.) Build and Debug the active project.

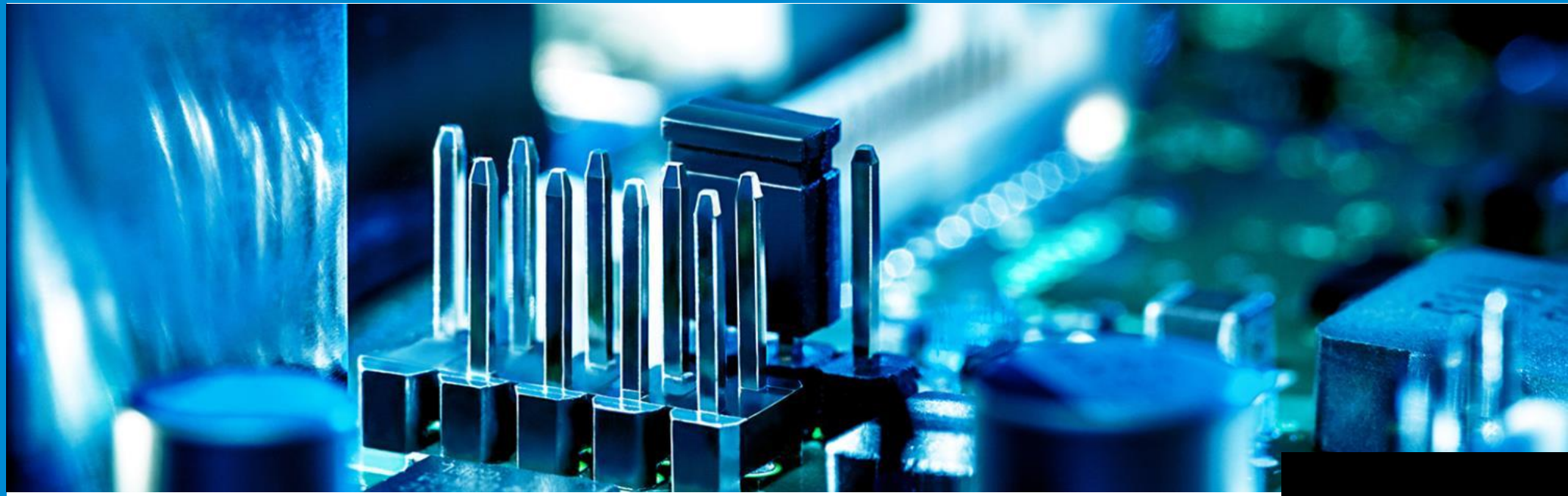




Check the README.md file before starting to explore the code example. You may find important hints or what else is needed to have firmware running properly.







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