

---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

## Table of contents

### BLOG

- [Hexiwear - Creating your first program](#)
- [Hexiwear - Docking station](#)

## Getting started

### ABOUT US

Search products



Six capacitive buttons surrounding an OLED display make up Hexiwear's user interface.

A double tap on any of the buttons will wake up the device and light up the OLED display to show the home screen.

If double taps don't wake up the device, the battery is probably empty. Connect Hexiwear to a power supply through the Micro USB port on the side. Charge for a while then try again.

## Navigation

From the home screen, a single tap on the lower right button will bring you into the menu. Use the pair of buttons to the right side of the screen to browse through the list of available items. Two dots on the right edge of the screen are visible wherever vertical scrolling is available.

The two buttons below the screen are for entering and exiting folders or turning settings on and off.

If you are left-handed, you can set up your Hexiwear so that the buttons on the left side of the screen are

reen, go to Menu >>> Settings >>> Active buttons.

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

You can reset it using the button on the rear side. You will



---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

---

SUPPORT

Hexiwear has a hexagonal form factor suitable for a wearable or a standalone device deployed in the field. Here's what you see from the outside:

BLOG

ABOUT US



1. Ambient light sensor
2. One of six capacitive buttons surrounding the central OLED display
3. RGB LED
4. Hexiwear Docking Station connector
5. Optical heart rate sensor LED and photodiode

Not visible here, Hexiwear also a Micro USB port on the upper left edge (looking from the front)

## Specifications

The following is a full list of components inside Hexiwear with links to relevant data sheets.

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

[Got it!](#)



---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

---

Smartwatch with heart-rate and temperature sensor, MEAS 11021D

- **Heart-rate sensor:** Maxim's MAX3010x
- **1.1" full color OLED display**
- **Haptic feedback engine**
- **190 mAh 2C Li-Po battery**
- **Capacitive touch interface**
- **RGB LED**
- **8 MB of additional Flash memory**

BLOG

## Schematic

The Hexiwear Docking Station schematic is available as a printable [PDF file](#)

The Hexiwear Docking Station schematic is available as a printable [PDF file](#)



Hexiwear Docking Station

- Building and debugging the first program

## Built-in applications and settings

The following is an overview of all the applications and settings on Hexiwear.

## Home screen

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

[Got it!](#)



---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

---

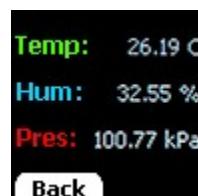
Smartwatch temperature

- Bluetooth connection status (blue when connected to smartphone)
- Smartphone notifications

## BLOG Apps

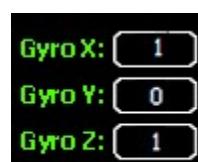
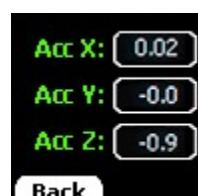
Weather Station

ABOUT US



Shows ambient temperature, humidity and pressure data in real time.

Motion



To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

[Got it!](#)

---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

SUPPORT

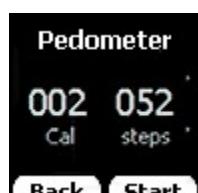
BLOG

ABOUT US



Toggles front-facing RGB LED.

Fitness – Pedometer



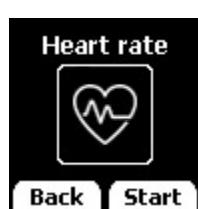
Step and calorie counter next to each other. Walking steps are inferred from accelerometer readings. Calories are calculated using a formula. "Stop" button resets count.

Fitness – Heart rate

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

**Got it!**



Heart rate

---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

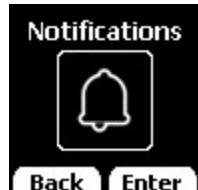
Accessories

---

Notifications

BLOG

ABOUT US



A more detailed overview of smartphone notifications visible from the home screen. Displays the number of missed calls, unread messages (from Gmail inbox) and unread SMS messages. Requires Hexiwear to be paired with a phone. Updated in real time.

## Settings

Bluetooth



Toggles bluetooth on and off. White when turned OFF, Blue when turned ON.

×

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

[Got it!](#)



---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

SUPPORT

Active buttons

BLOG



Sets active buttons to either left or right side (used for vertical scrolling). Left-handers will want to set it to the left, in order not to obstruct their view of the screen while tapping buttons.

Haptic



Toggles haptic feedback engine on and off. White when turned OFF, Blue when turned ON. Haptic engine gives tactile feedback on button presses. Deactivating it conserves battery.

**Get app**



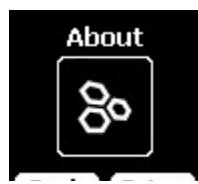
Displays QR codes for fetching and installing the Hexiwear smartphone app. Choose between Android and iOS. Requires a QR Code reader on your smartphone. Alternatively, you can download the apps

×

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

**Got it!**



---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

SORT BY

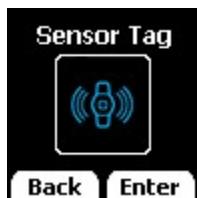
Back | Reset

Software reset button.

BLOG

## Sensor tag mode

ABOUT US



Toggles Sensor tag mode. When active, Hexiwear will continually broadcast readings from all its internal sensors over BLE. The readings can be accessed from the Hexiwear smartphone app, or directly from the WolkSense cloud. White when turned OFF, Blue when turned ON.

## Hexiwear smartphone apps

The Hexiwear smartphone app will significantly expand the functionality of your Hexiwear. It will allow you to remotely access the readings from all of Hexiwear's sensors, and log the data into a cloud. Since Hexiwear uses Bluetooth Low Energy for wireless communication, you will need a phone that supports Bluetooth 4.1.

## Installing the smartphone app

x

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

Got it!

ible with iPhone, iPad, and iPod touch)



---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

---

SUPPORT



## Pairing Hexiwear with smartphone

### Video walkthrough

A video walkthrough on using the Hexiwear app is [available on Youtube](#). Minor differences from the current version of application may exist.

[ABOUT US](#)

### Step by step



3. Launch Hexiwear app from your phone

4. The app will prompt you to turn ON the Bluetooth on your phone

5. Log-in to your WolkSense account (first time users will need to register, it's free)

6. From the main screen, swipe down to scan for available Hexiwear devices; select one.

7. A six digit passkey will appear on Hexiwear's display. At the same time the smartphone app will prompt you to type in the passkey.

8. Hexiwear is now connected to your smartphone. Sensor readings will appear shortly.

### Troubleshooting

If errors occur, to restart the pairing process, go to the Bluetooth settings on your smartphone and "forget" the Hexiwear device. This removes all the initialization data and enables you to start over.

## Wolksense cloud platform

By registering an account in Hexiwear's smartphone app, you automatically gain access to the WolkSense cloud. To send Hexiwear sensor readings to the cloud do the following:

1. Pair Hexiwear with smartphone
2. Make sure that Hexiwear is in Sensor Tag mode

 one app settings menu

the same username and password you use for the Hexiwear

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

functionalities that the Wolksense platform offers: sensor

[Got it!](#)

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

## Setting up alarms

The Wolksense platform also allows you to configure thresholds for each sensor to set off alarms when certain low or high values are reached. To set alarms, click on the "Sensors" tab and open the Hexiwear device settings. You can apply different settings for individual sensors.

## Creating reports

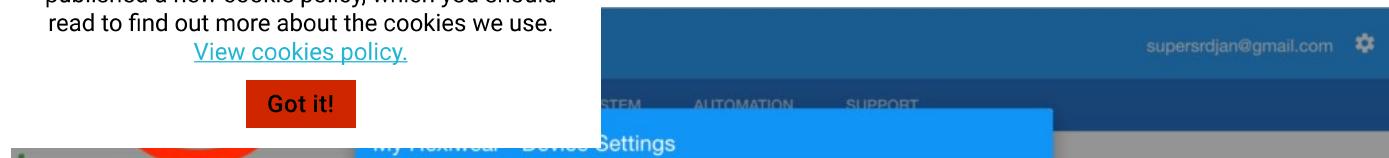
The "Reports" tab on the Wolksense cloud will allow you to generate reports of logged sensor readings. G



To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

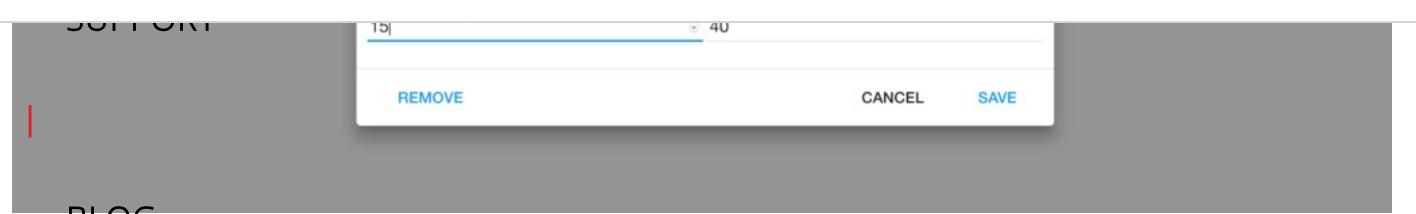
[View cookies policy.](#)

[Got it!](#)



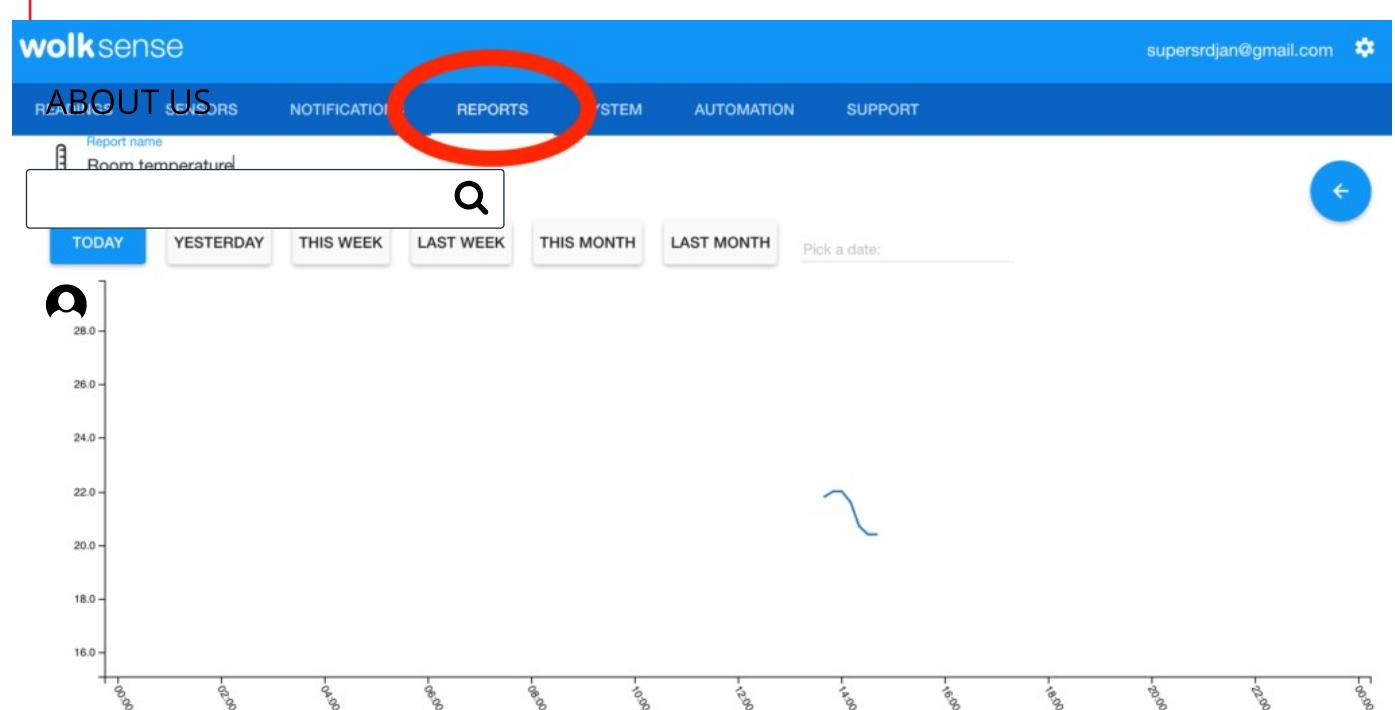
Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories



BLOG

Setting alarms in the Device settings menu from the SENSORS tab



A graph showing room temperature changes over a half hour period, measured by Hexiwear

## Hexiwear Docking Station

x

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

[Got it!](#)



---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

---

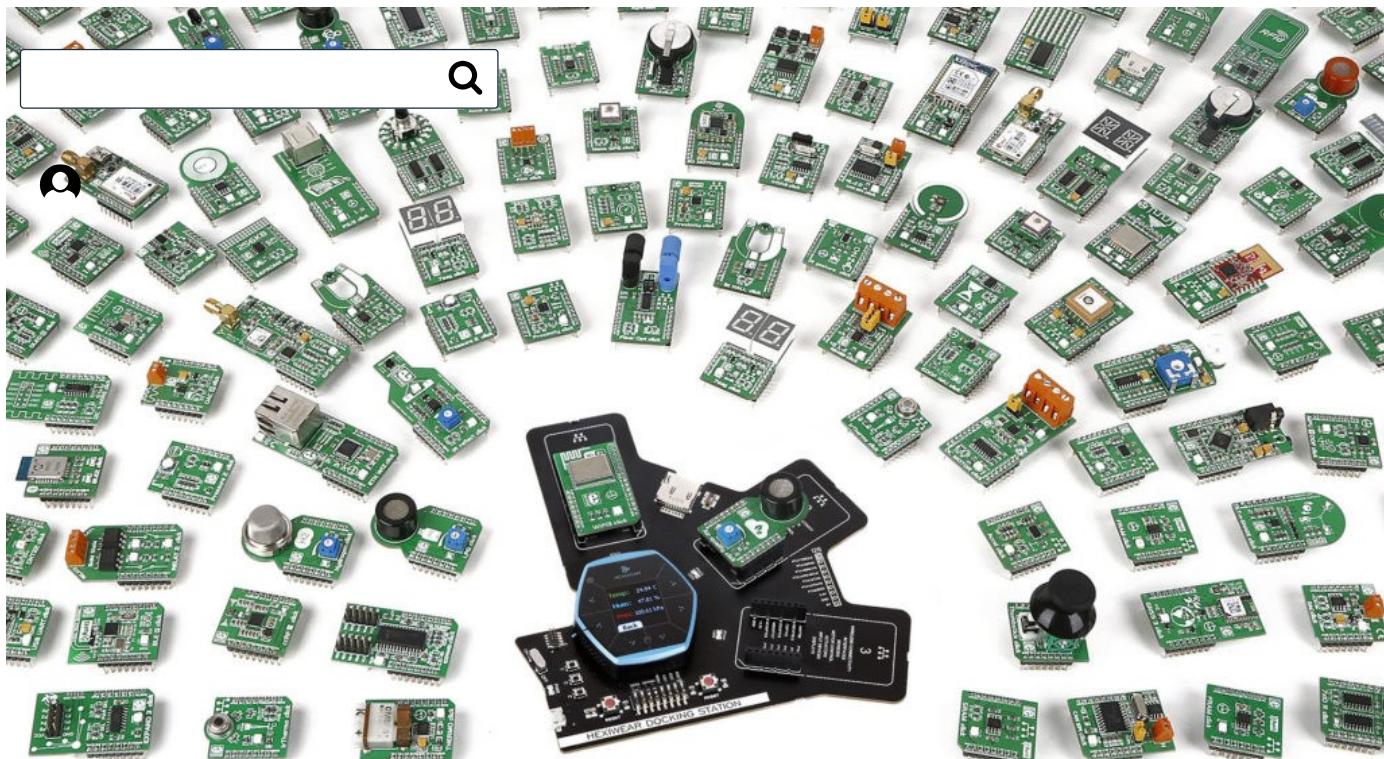
SUPPORT

---

BLOG

---

ABOUT US



To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

**Got it!**

×

1 board that provides an interface for programming, additional functionalities (by adding click boards™). The uses of Hexiwear as a development tool. For more guide.

---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

---

## Software and Tools Environment Setup

### <sup>BLOG</sup> Step 1: Jump Start Your Design with the NXP Kinetis SDK!

Kinetis SDK is a complementary collection of comprehensive software enablement for NXP Kinetis Microcontrollers that includes system startup, peripheral drivers, USB and connectivity stacks, real-time system (RTOS) kernels. Hexiwear is developed based on Kinetis SDK Release appropriate for your computer's operating system, the link to Kinetis SDK is:

 [Kinetis SDK](#)

### Step 2: Install the NXP KDS Toolchain

The Kinetis Design Studio (KDS) is a complimentary integrated development environment for Kinetis MCUs that enables robust editing, compiling and debugging of your designs. Based on free, open-source software including Eclipse, GNU Compiler Collection (GCC), GNU Debugger (GDB), and others, the Kinetis Design Studio IDE offers designers a simple development tool with no code-size limitations. Hexiwear default software can be modified in the KDS.

[Download the latest version on KDS.](#)

### Step 3: Serial UART Driver

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)



over the MCU UART so make sure that the driver for the you run the driver installer, please make sure you have ion plugged in to your PC. For More instruction on how to deo at [www.hexiwear.com/1769-](http://www.hexiwear.com/1769-)

[Got it!](#)

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

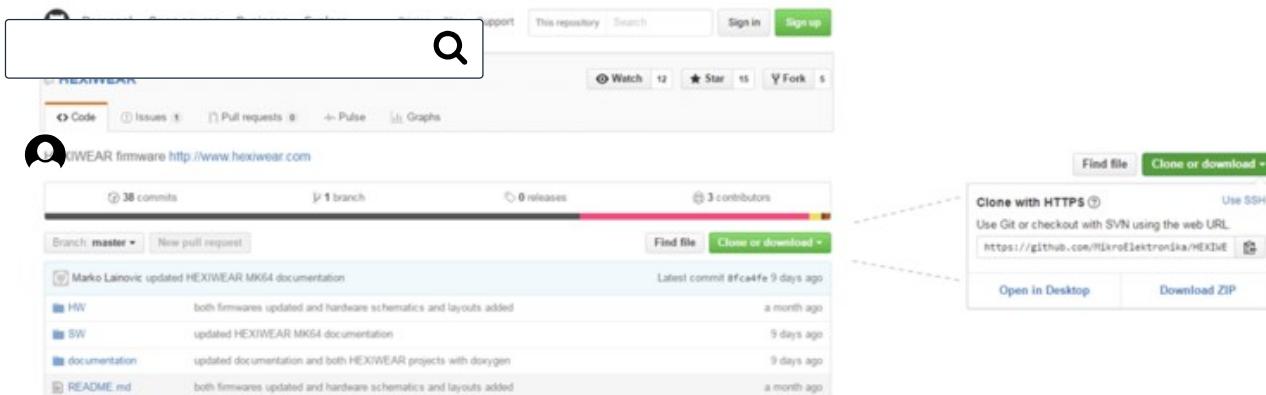
Accessories

SUPPORT

## Step 4: Download Hexiwear Hardware / Software / Documentation package

- Go to the Hexiwear Github repository located at: [github.com/MikroElektronika/HEXIWEAR](https://github.com/MikroElektronika/HEXIWEAR)
- Select Clone or download and choose Download ZIP in the popup window
- Once the download is complete, extract the content of the HEXIWEAR-master.zip on your computer.

ABOUT US



## Step 5: Install Eclipse Updates

Before using Kinetis Design Studio IDE with Kinetis SDK, the Kinetis SDK Eclipse update must be applied. Without this update, Eclipse cannot generate Kinetis SDK-compatible projects.

## Kinetis Design Studio IDE for CS Users

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

**Got it!**

ask you to select a workspace. Select default workspace.



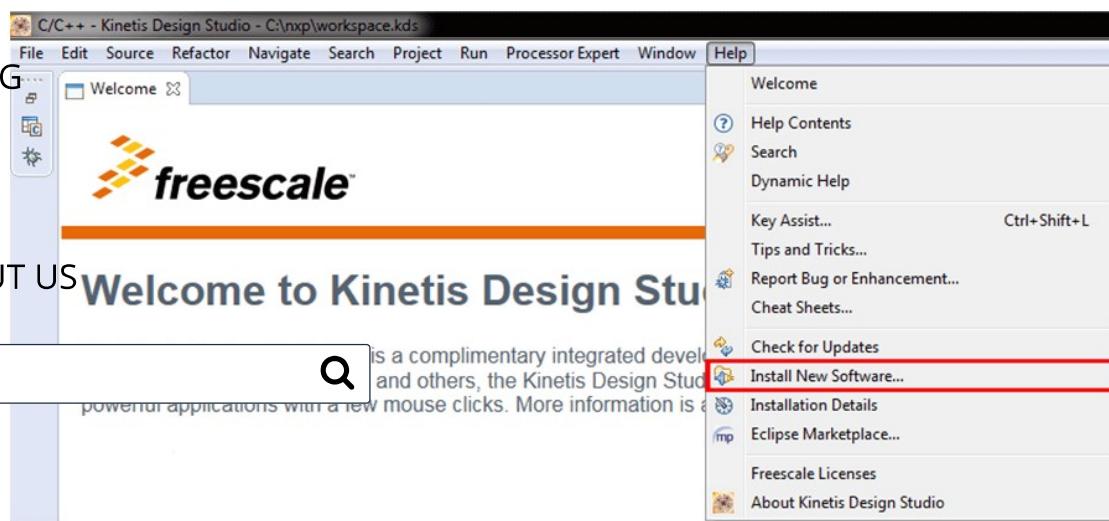
Kinetis Design Studio stores your projects in a folder called a workspace.

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

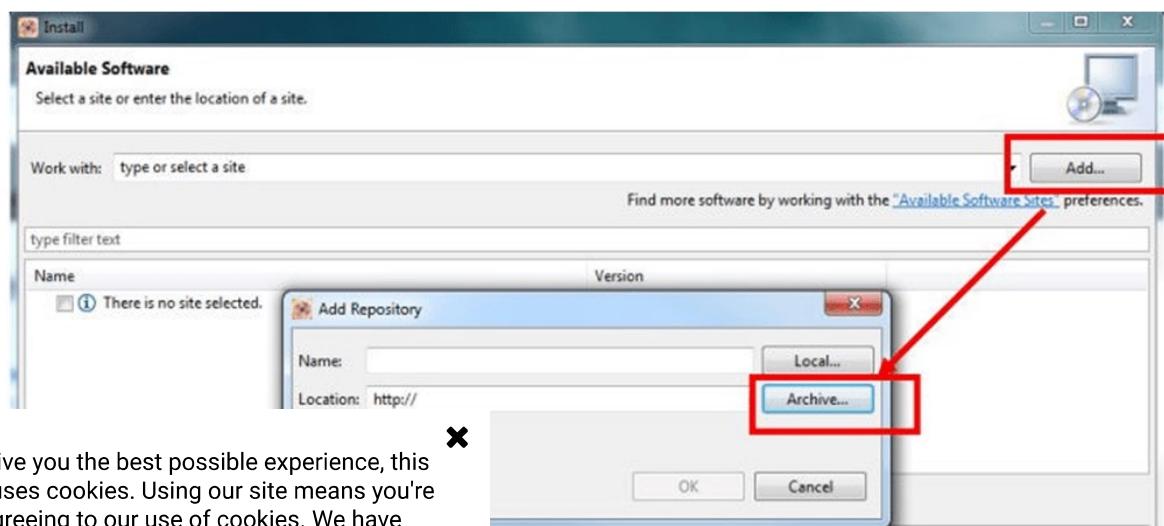
Accessories

SUPPORT

From Kinetis Design Studio toolbar, select Help then Install New Software



In the Install New Software dialog box, click the Add button in the upper right corner. Then, in the Add Repository dialog, select the Archive button



To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

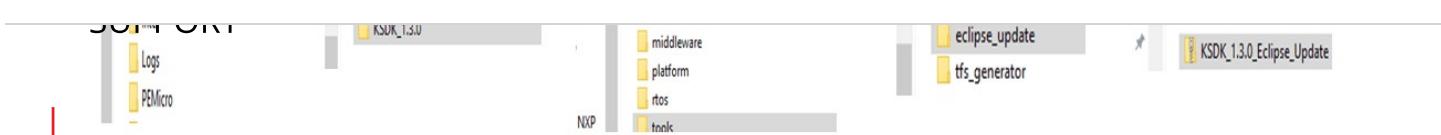
[View cookies policy.](#)

**Got it!**

Use the Kinetis SDK install directory. Find the following file:

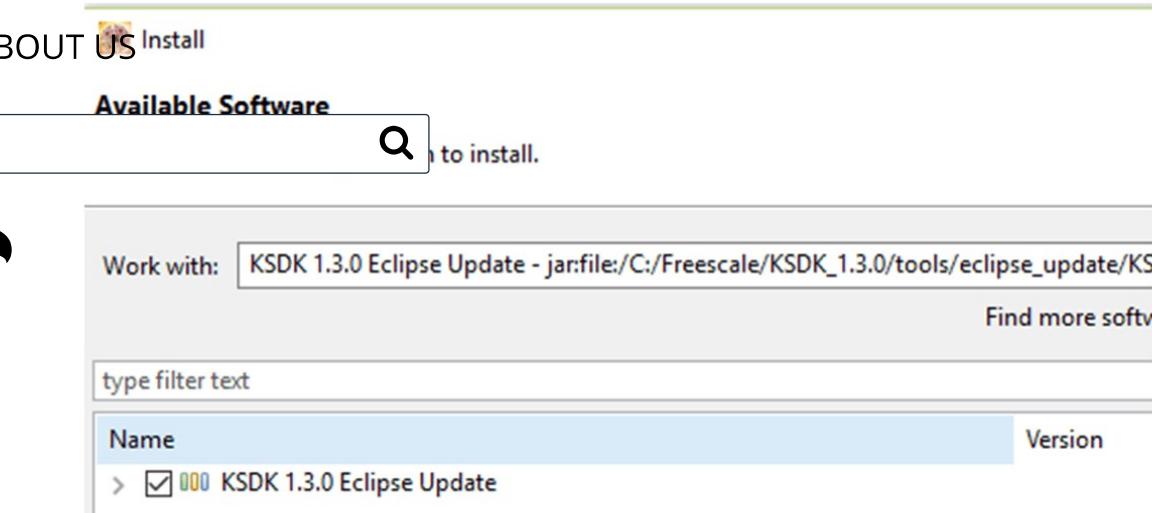
Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

## Accessories



Click **Ok** and the **OK** button in the Add Repository dialog box.

The Kinetis SDK update shows up in the list of the original Install dialogs



Check the box to the left of the KSDK 1.3.0 Eclipse Update and click the Next button in the lower right corner. Follow the remaining instructions and Accept the licensing to finish the installation of the update. After the update is applied, restart KDS for the changes to take effect.

## Step 6 Install PyOCD Eclipse Add-in

In order to program/debug Hexiwear via its docking featuring an ARM DAP-LINK Debug, virtual Serial and Flash programming interface we need to upgrade Eclipse with the PyOCD plug-in.

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

non software  
.11 installer at: [www.python.org/downloads](http://www.python.org/downloads)

**Got it!**



Search

GO

Socialize

Sign In

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories



Double click on the installer located in your download directory and follow the instructions.

### Download the Zip package for the PyOCD Eclipse Plugin

From Sourceforge at <https://sourceforge.net/projects/gnuarmeclipse/files/Eclipse/> and select the latest version shortcut (see picture below)

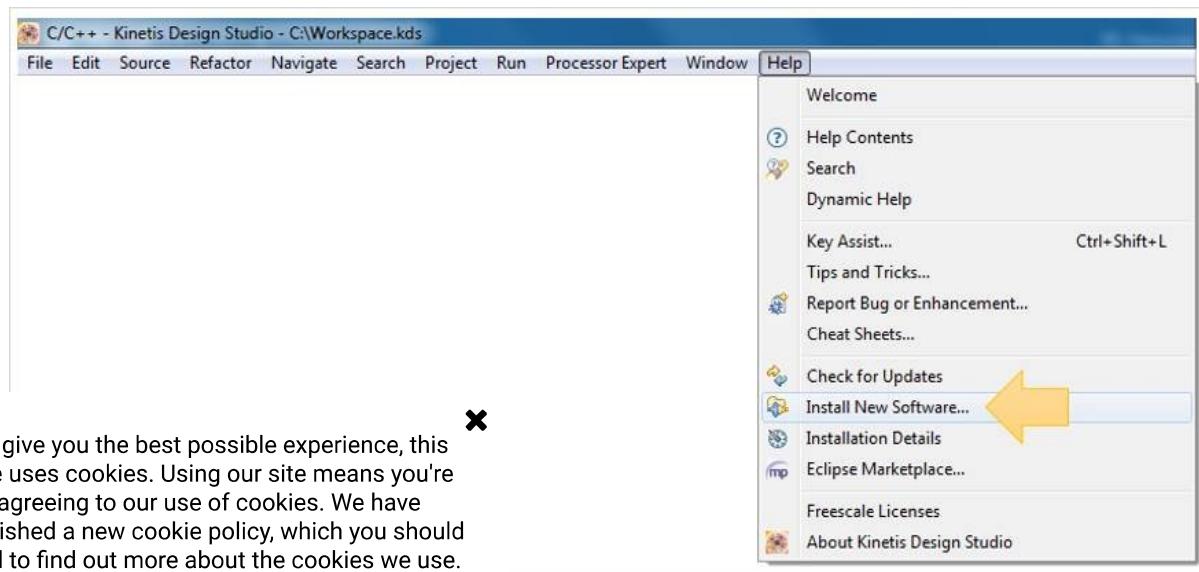
The [ilg.gnuarmeclipse.repository-3.2.1-201701141320.zip](#) file is also available from Hexiwear Github repository in the folder [SW/PyOCD](#)

Copy the zip package to the folder [C:\Freescale](#) of your computer hard-drive

Looking for the latest version? [Download ilg.gnuarmeclipse.repository-3.2.1-201701141320.zip \(7.5 MB\)](#)

### Now let's upgrade Eclipse with PyOCD plug-in.

a. Select from KDS toolbar Help >> Install New Software...



To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

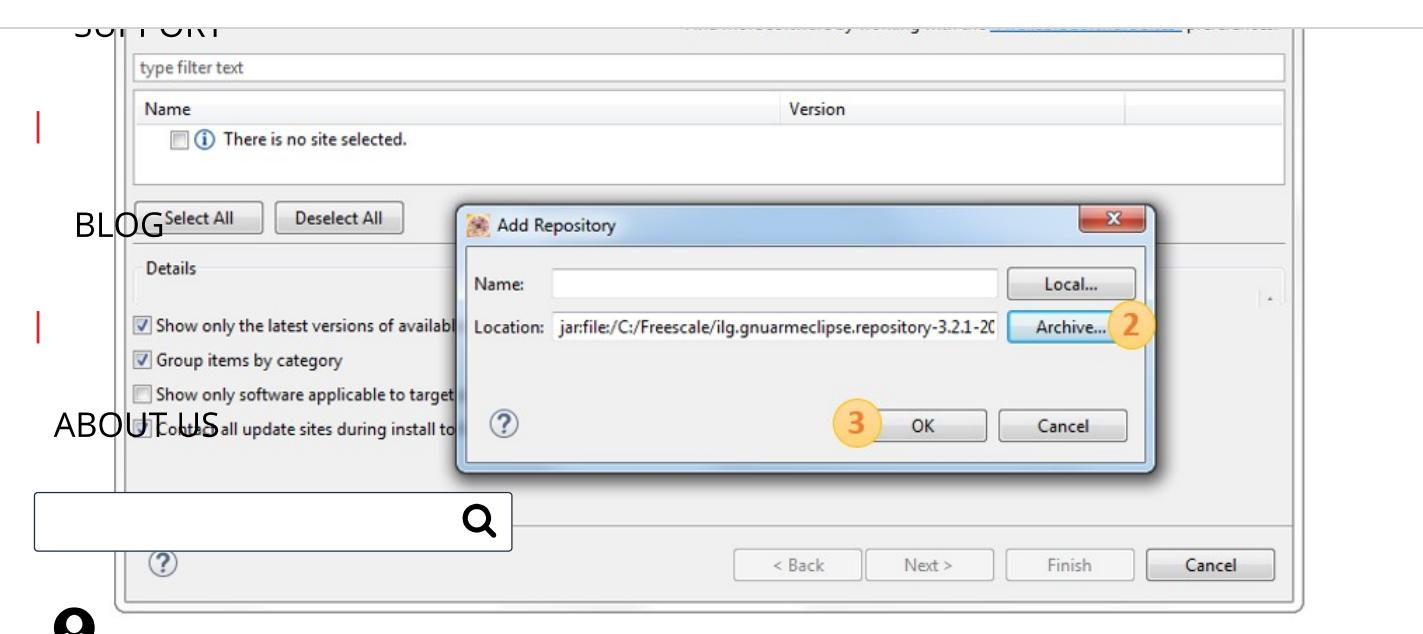
[View cookies policy.](#)

[Got it!](#)

hive...

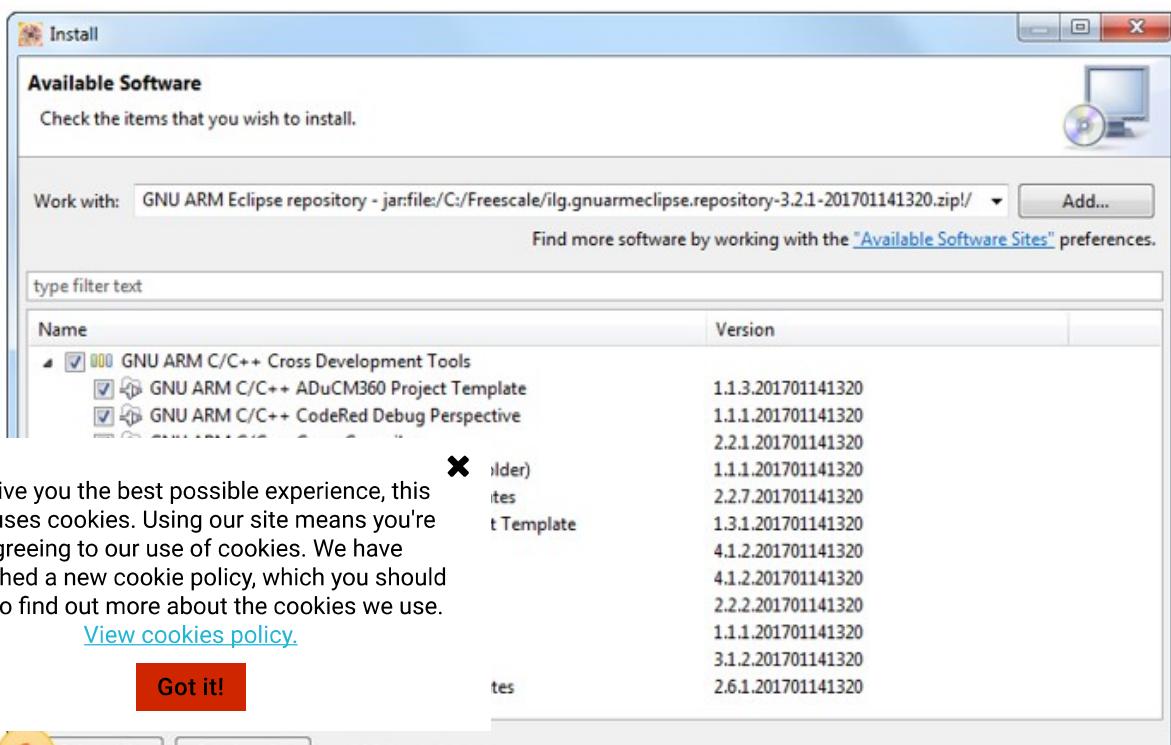
Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

## Accessories



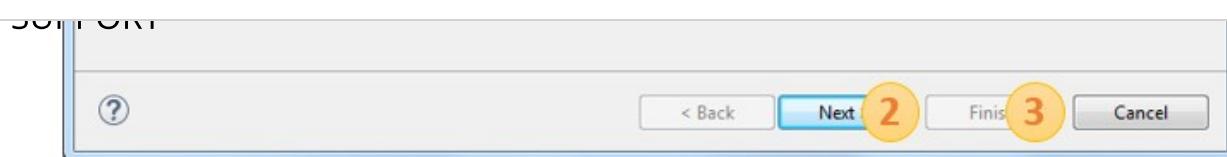
d. Check the box next to GNU ARM C/C++ Cross Development Tools **TO SELECT ALL THE OPTIONS** (see picture below) and click on Next

e. Accept the license agreement then Click on Finish...



Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories



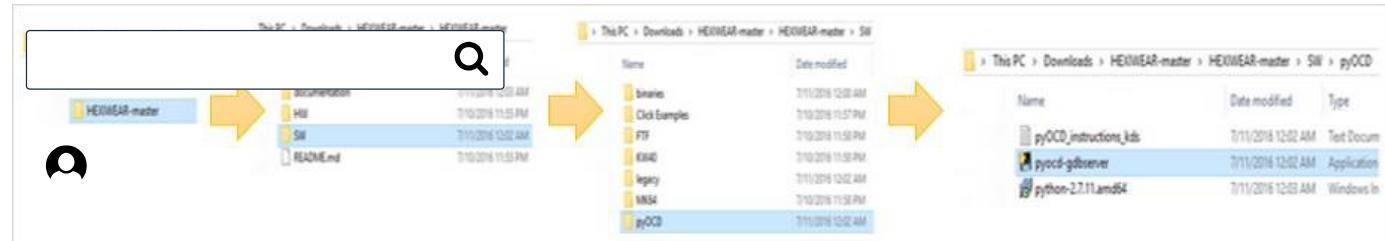
## BLOG

f. Kinetis Design Studio will restart to complete the installation of the plugin

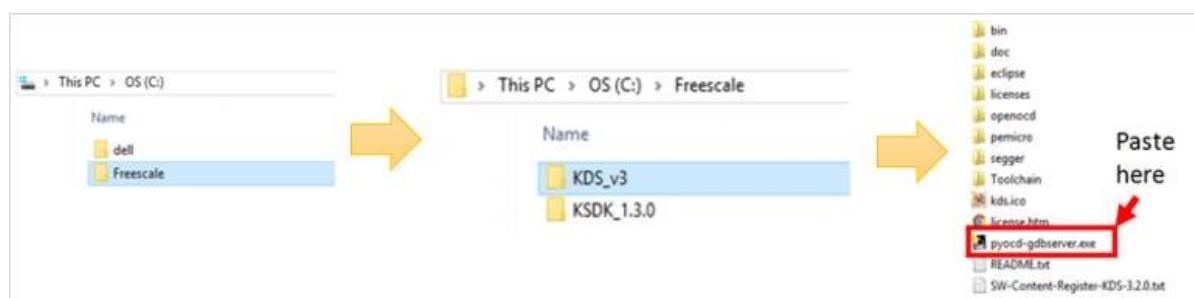
### You must now install PyOCD GDB Server tool

The **pyocd-gdbserver.exe** file is also available from Hexiwear Github repository in the folder SWpyOCD

ABOUT US



Copy the executable to KDS root folder folder C:\FreescaleKDS\_v3



## Building and debugging the first program

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

**Got it!**

gn Studio

- [MICO on Eclipse: How to use Kinetis Design Studio](#)

## Accessories

Let's now build with the NXP KDS toolchain a project example for the Hexiwear board. First, open Kinetis Design Studio, then follow these steps:

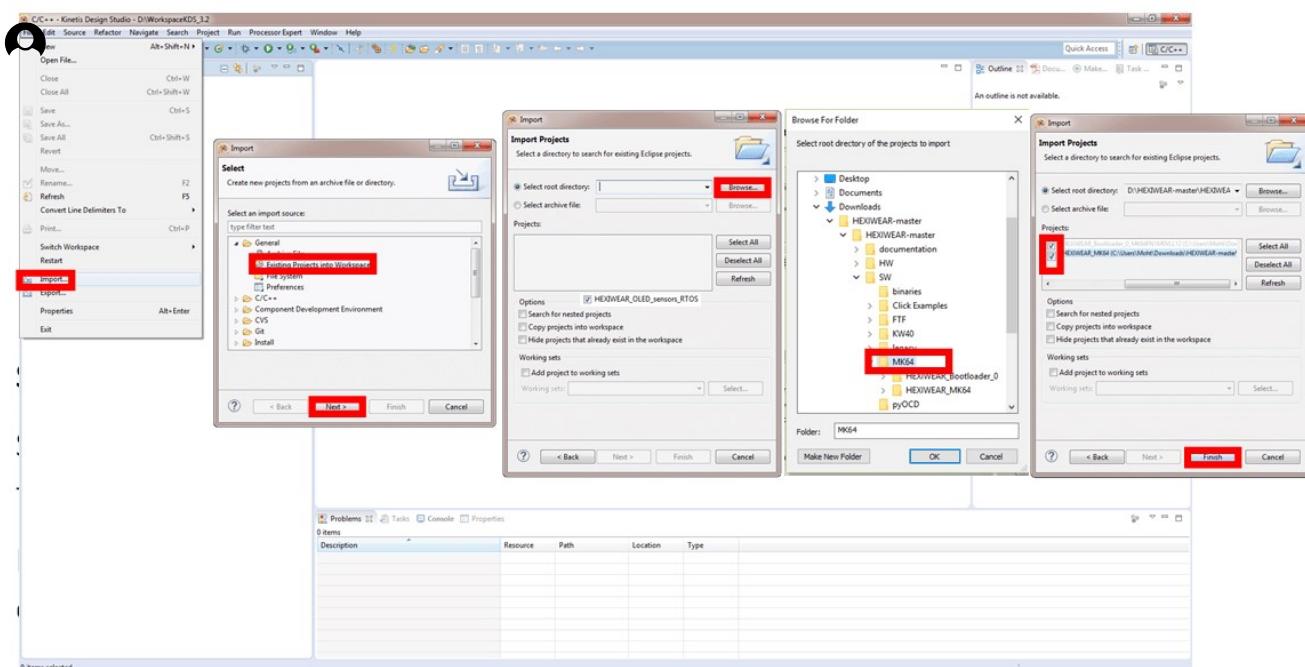
1. Select File, Import from the KDS IDE menu. In the window that appears, expand the General folder and select Existing Projects into Workspace. Then press the Next button.
2. Click the Browse button next to the Select root directory: option
3. Point to the project folder for the K64 device, which can be found in the HEXIWEAR-master package using this path:

```
<install_dir>HEXIWEAR-master\SW\MK64
```

## ABOUT US

4. Press OK, then Check the box to the left of the **HEXIWEAR\_MK64** and **HEXIWEAR\_Bootloader\_0**

project in the lower right corner.



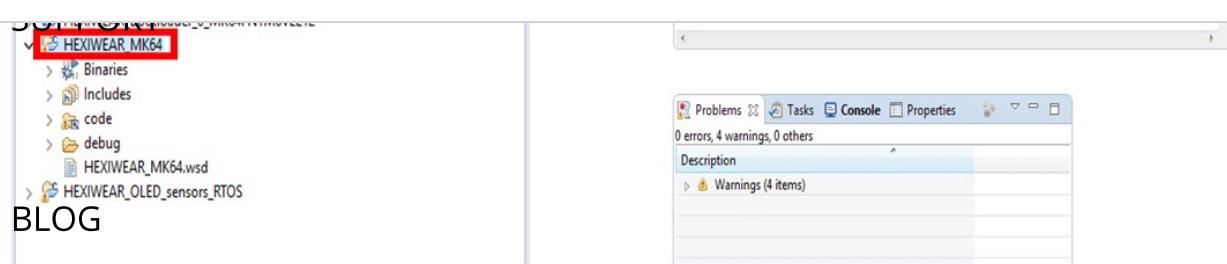
To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

**Got it!**

## near Project

object explorer window and click on the Build icon (hammer)

[ABOUT US](#)

## Step 3: Placing Hexiwear unit on Docking Station

For more instruction on how to put Hexiwear on docking station, watch the video at [www.hexiwear.com/1769-2/](http://www.hexiwear.com/1769-2/)



Plug the Hexiwear board to the Docking Station via the specific connector.



To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

[Got it!](#)

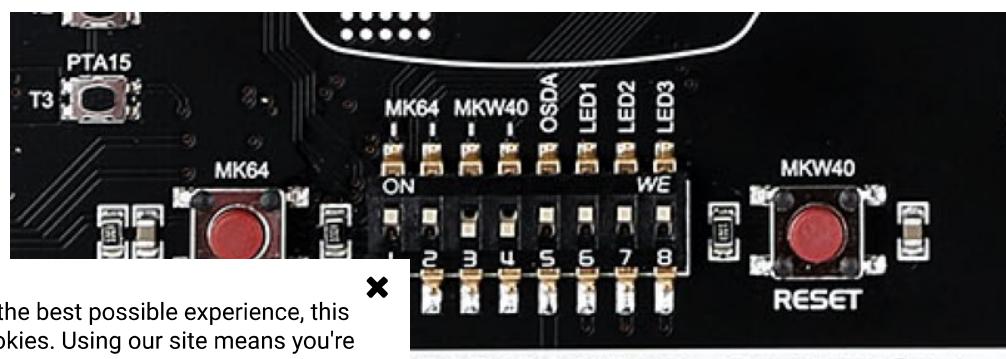
The debug interface called OpenSDA. By default it is the nSDA Application, which delivers Debug, Virtual Serial and

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories



Hexiwear embeds two MCUs, a Kinetis K64F as main MCU and a KW40Z as BLE MCU. On the Docking Station please make sure that you have the correct jumper configuration, to debug the Kinetis K64F: 11001111



To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

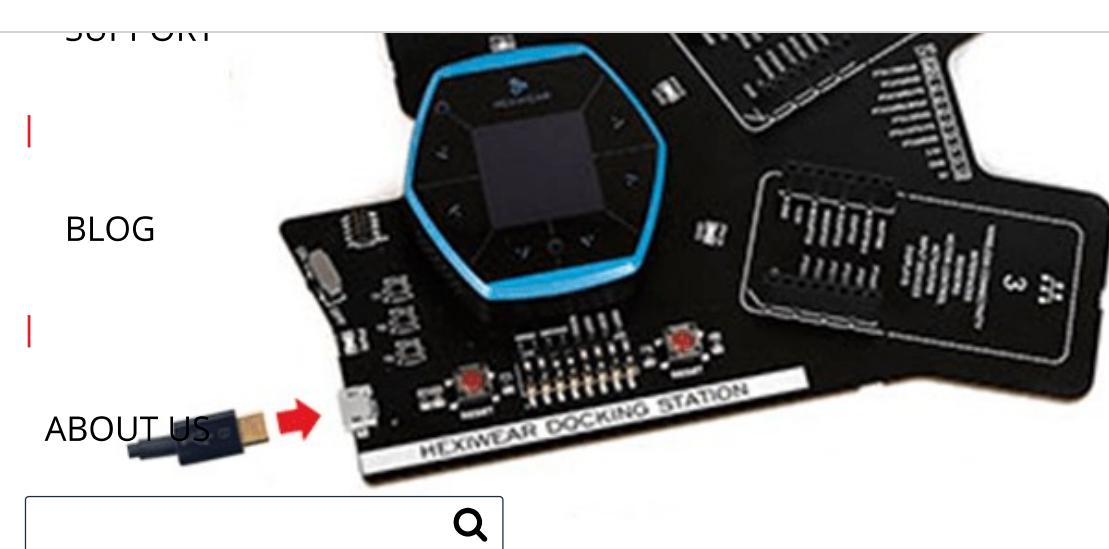
[View cookies policy.](#)

[Got it!](#)

Docking Station packaging. Connect one end of the USB to the micro-USB port of the Docking station.

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories



Windows should detect a new peripheral

To properly finish the installation of the OpenSDA / DAP-LINK drivers, you must download and install the ARM mbed Serial drivers at the address below As a confirmation, check in the Peripheral Manager that you don't have peripherals unidentified and that the following devices are available:

- Portable Device: DAP-LINK
- Ports (COM & LPT): mbed Serial Port (COMxxx)

## Step 4: Debug Configuration Settings

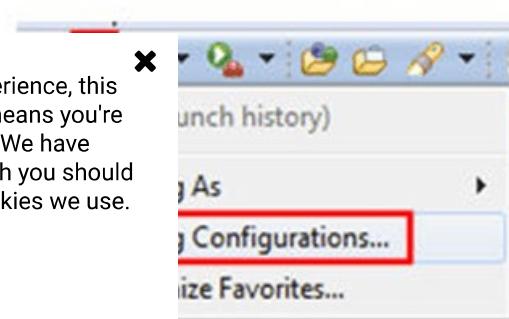
Let's now launch the debug session for the Hexiwear project example with KDS toolchain.

Click on the small downward arrow next to the Debug (green bug) icon from the toolbar and select Debug Configurations...

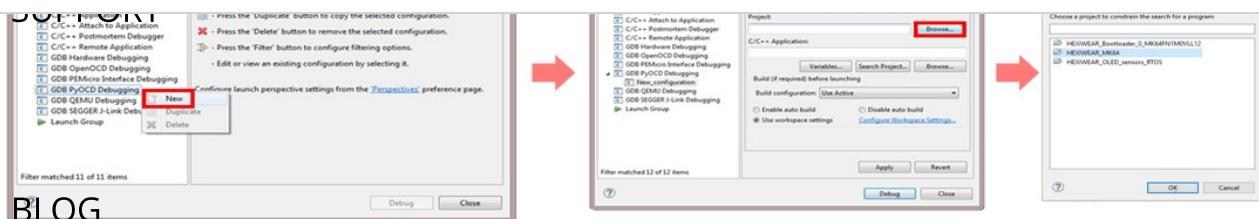
To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

**Got it!**

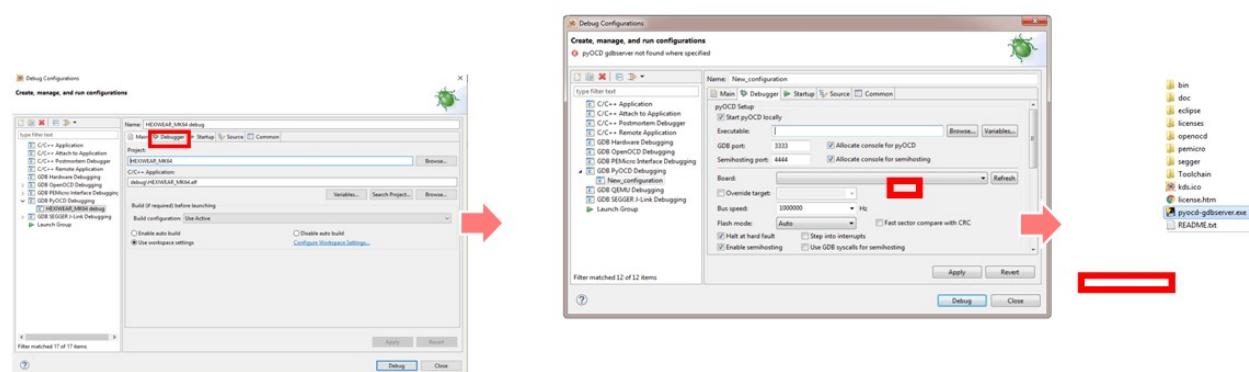


## Accessories

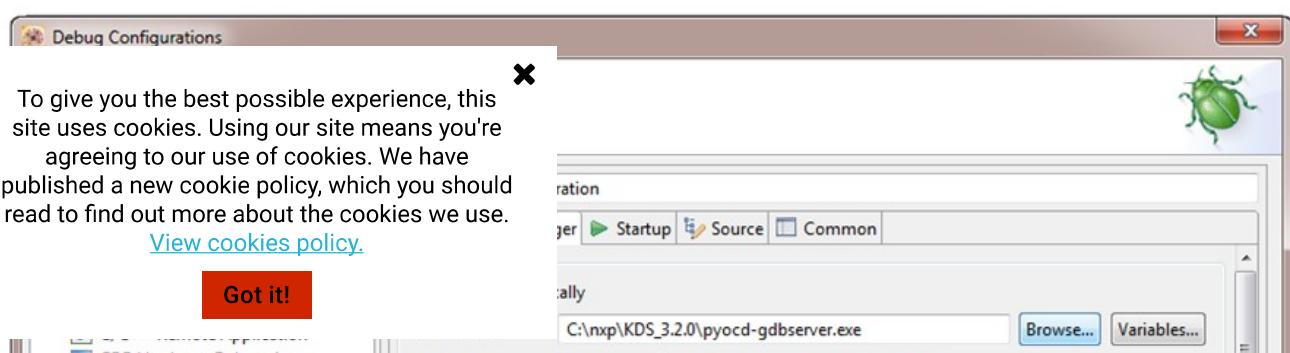


In order to program/debug Hexiwear via its docking featuring an ARM DAP-LINK Debug, virtual Serial and Flash programming interface, we need to upgrade Eclipse with the PyOCD plug-in. The PyOCD plug-in requires first to install Python software

For this, click the 'Browse' button next to PyOCD Setup / Executable, choose the `pyocdgdbserver.exe` and press OK

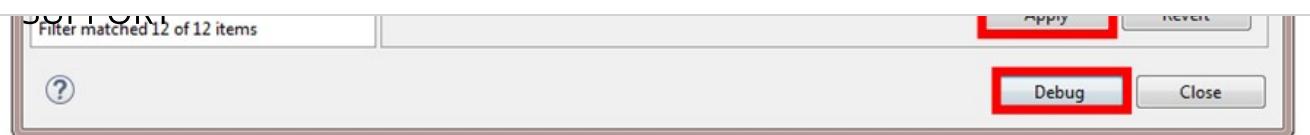


Click on the buttons Apply and Debug to launch the debug session



Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories



## BLOG

In the console, you should see the project starting to be programmed in the K64F MCU of the Hexiwear board



Press the Resume icon from the toolbar to start the application



To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

[Got it!](#)

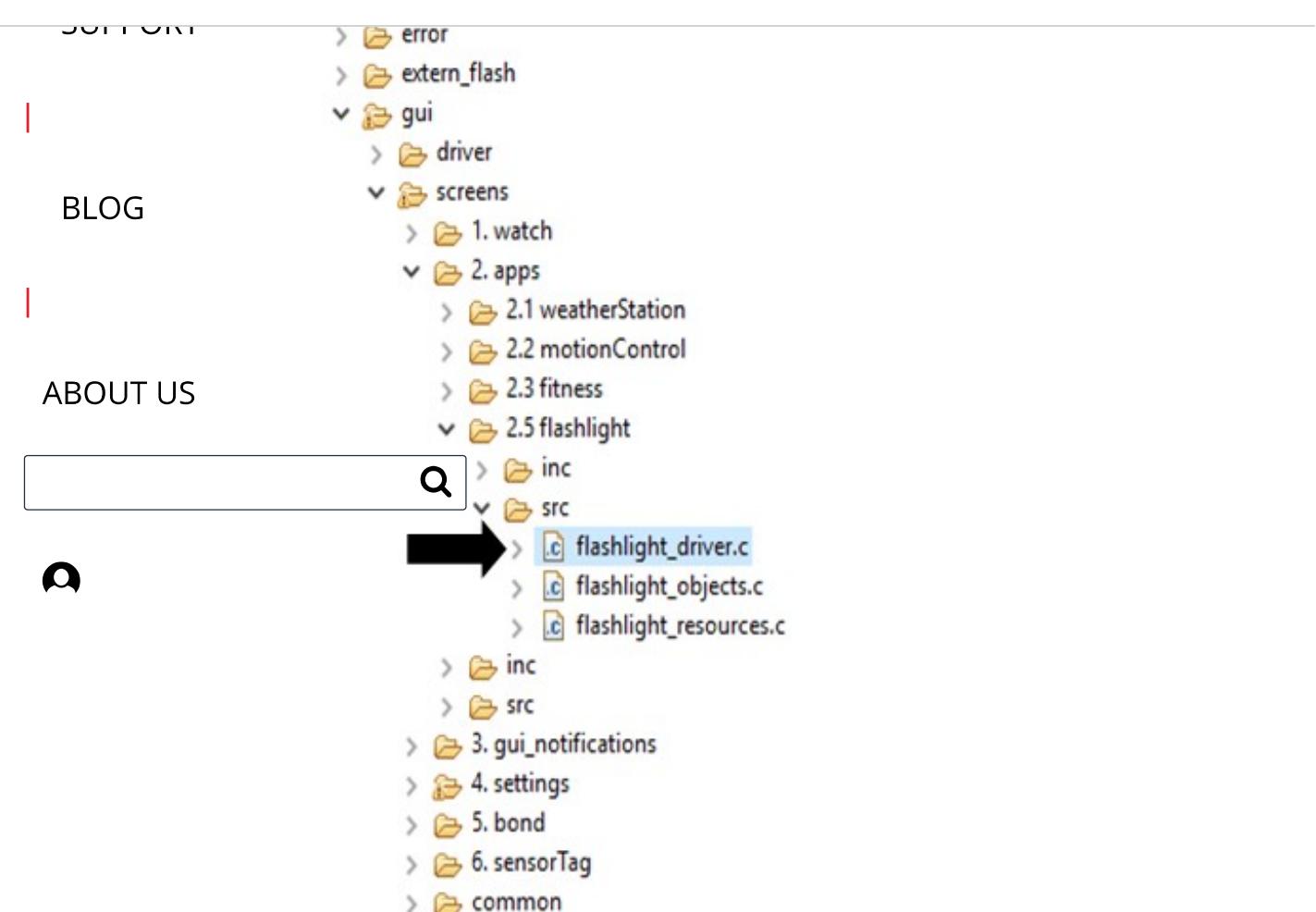
Light and Haptic Feedback

LED Tweaks

---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories



This code is designed for turning on or off the RGB LED based on input from app on Hexiwear unit

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

**Got it!**

```
lse; flashlight_icon.img = flashlight_off.bmp; FLASH_SetOFF()
ue; flashlight_icon.img = flashlight_on.bmp; FLASH_SetON()
```

## Accessories

**BLOG**

```

void flashlight_Init( void* param )
{
    GuiDriver_ImageAddToScr( &flashlight_icon );
    GuiDriver_RegisterForNavigation( GUI_NAVIGATION_RIGHT );
}

/*
 * create the app task
 * @param param optional parameter
 */
void flashlight_CreateTasks( void* param )
{
    osa_status_t
        status = OSA_TaskCreate (

```

## ABOUT US

Change Code for RED LED.



```

#include "gui_driver.h"
#include "flashlight.h"
#include "flashlight_private.h"
#include "haptic.h"
#include "GPIO.h"

#define SetFlashOFF() isFlashlightOn = false; flashlight.icon.img = flashlight_off_bmp; RED_LED_OFF()
#define SetFlashON() isFlashlightOn = true; flashlight.icon.img = flashlight_on_bmp; RED_LED_ON()

/* intern functions declarations */
static void flashlight_ToggleTask( task_param_t param );

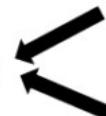
task_handler_t
    flashlight_taskHandler;

static bool
    isFlashlightOn;

static hostInterface_packet_t
    flashlight_dataPacket;

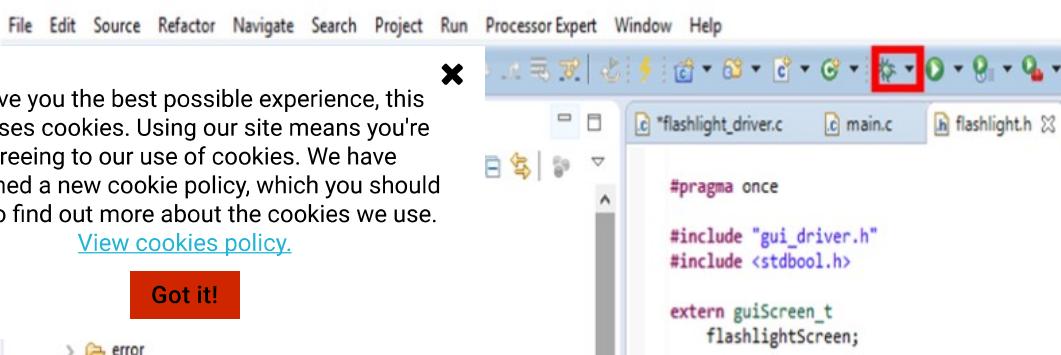
/*
 * initialize the flashlight app
 * @param param optional parameter
 */
void flashlight_Init( void* param )
{
    GuiDriver_ImageAddToScr( &flashlight_icon );
    GuiDriver_RegisterForNavigation( GUI_NAVIGATION_RIGHT );

```



Replace "FLASH\_SetON()" by  
"RED LED ON()"

Press the Debug icon from the toolbar to start the application



---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

SUPPORT

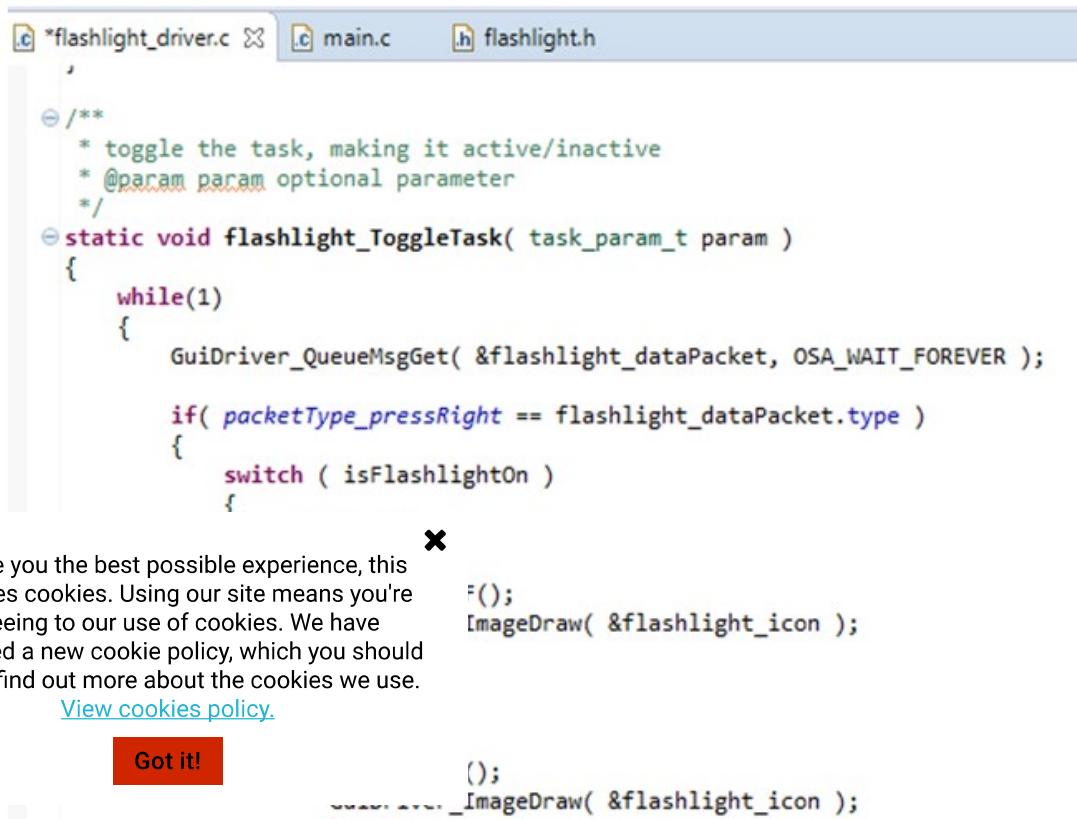
BLOG



Now using flashlight app on Hexiwear, Red LED would turn on instead on RGB LED  
ABOUT US

## Exercise 2. Change Haptic Feedback Duration

- Use the same file `flashlight_driver.c`
- Locate `haptic_Vibrate()` function.

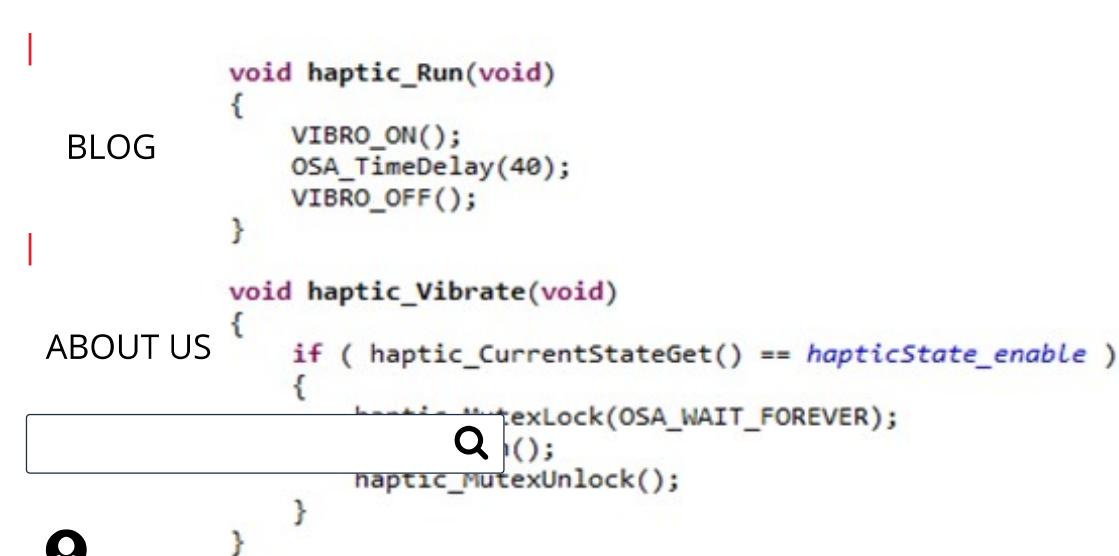


```
/*  
 * toggle the task, making it active/inactive  
 * @param param optional parameter  
 */  
static void flashlight_ToggleTask( task_param_t param )  
{  
    while(1)  
    {  
        GuiDriver_QueueMsgGet( &flashlight_dataPacket, OSA_WAIT_FOREVER );  
  
        if( packetType_pressRight == flashlight_dataPacket.type )  
        {  
            switch ( isFlashlightOn )  
            {  
                case 0:  
                    ImageDraw( &flashlight_icon );  
                    break;  
                case 1:  
                    ImageDraw( &flashlight_on_icon );  
                    break;  
            }  
        }  
    }  
}
```

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

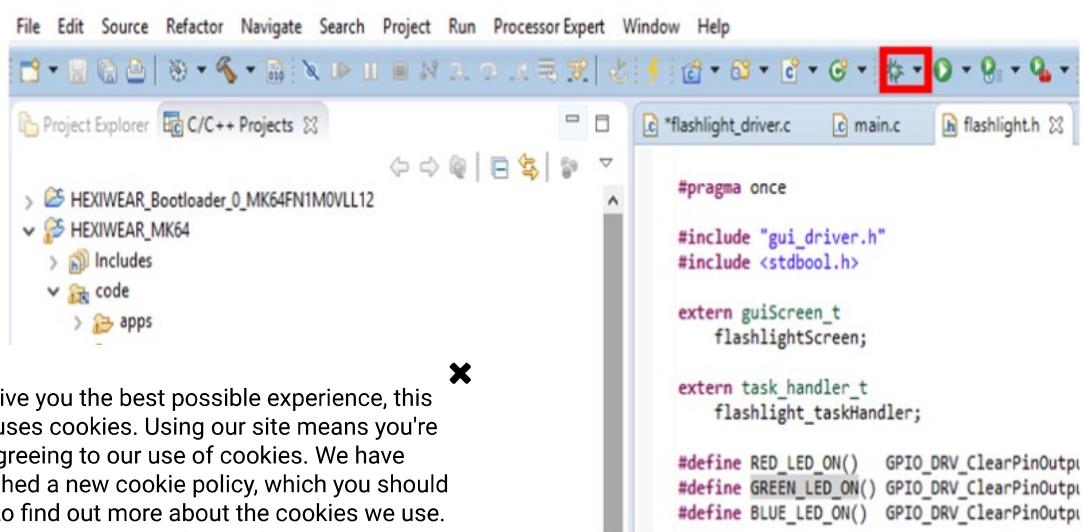
**Got it!**



```
void haptic_Run(void)
{
    VIBRO_ON();
    OSA_TimeDelay(40);
    VIBRO_OFF();
}

void haptic_Vibrate(void)
{
    if ( haptic_CurrentStateGet() == hapticState_enable )
    {
        haptic_MutexLock(OSA_WAIT_FOREVER);
        haptic_Vibration();
        haptic_MutexUnlock();
    }
}
```

- Changing the OSA\_TimeDelay () value will change the vibration duration of the Haptic feedback motor on every click. Change the value to 200.
- Press the Debug icon from the toolbar to start the application.



# Hexiwear

Hexiwear is a standalone development kit for IoT, designed to look and feel like a consumer-grade device. Consult the [Hexiwear user guide](#) for a detailed overview.

[BLOG](#)

## Features

### ABOUT US

Every feature of the Docking Station is intended to either expand Hexiwear's functionality or to provide an interface for changing and debugging its firmware. The two most important features are the three [n](#)  A circuitry that allows you to program/debug Hexiwear through USB.

### What's on board

The majority of components are on the front side.



---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

## Accessories

---

8. Pushbuttons

9. Micro USB port

10. OpenSDA control interface

The OpenSDA programmer/debugger circuitry is on the rear of the board:

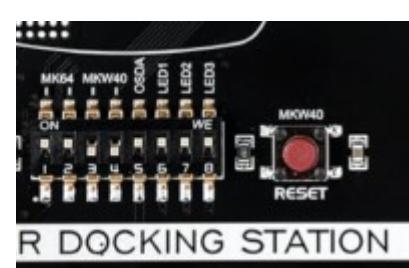


## Buttons and switches close-up

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

[Got it!](#)



Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

## Accessories

be in lower position.

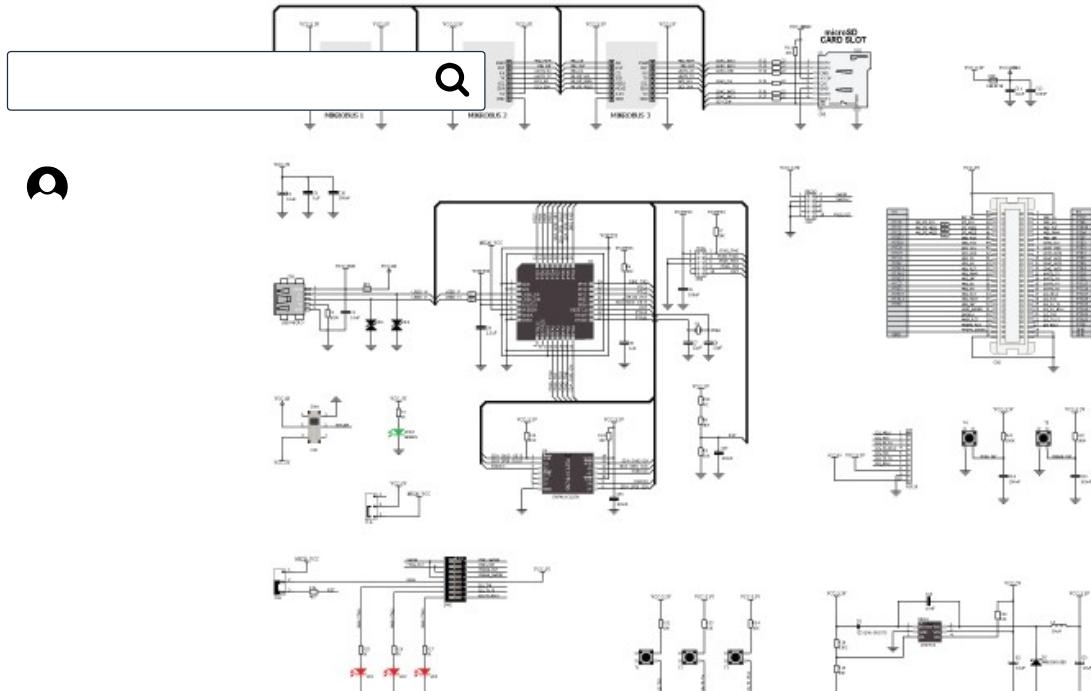
The remaining switches (6-8) are for choosing whether PTA12, PTA13 and PTA14 pins are connected to the Docking Station LEDs (the pins can also be used as GPIOs (refer to the schematic to see how specific pins are routed).

### BLOG Schematic

HEXIWEAR DockingStation v102 Schematic



#### ABOUT US



[www.mikroe.com](http://www.mikroe.com)

MikroElektronika assumes no responsibility or liability for any errors or inaccuracies that may appear in the present document. Specification and information contained in the present schematic are subject to change at any time without notice. Copyright©2017 MikroElektronika. All rights reserved.

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

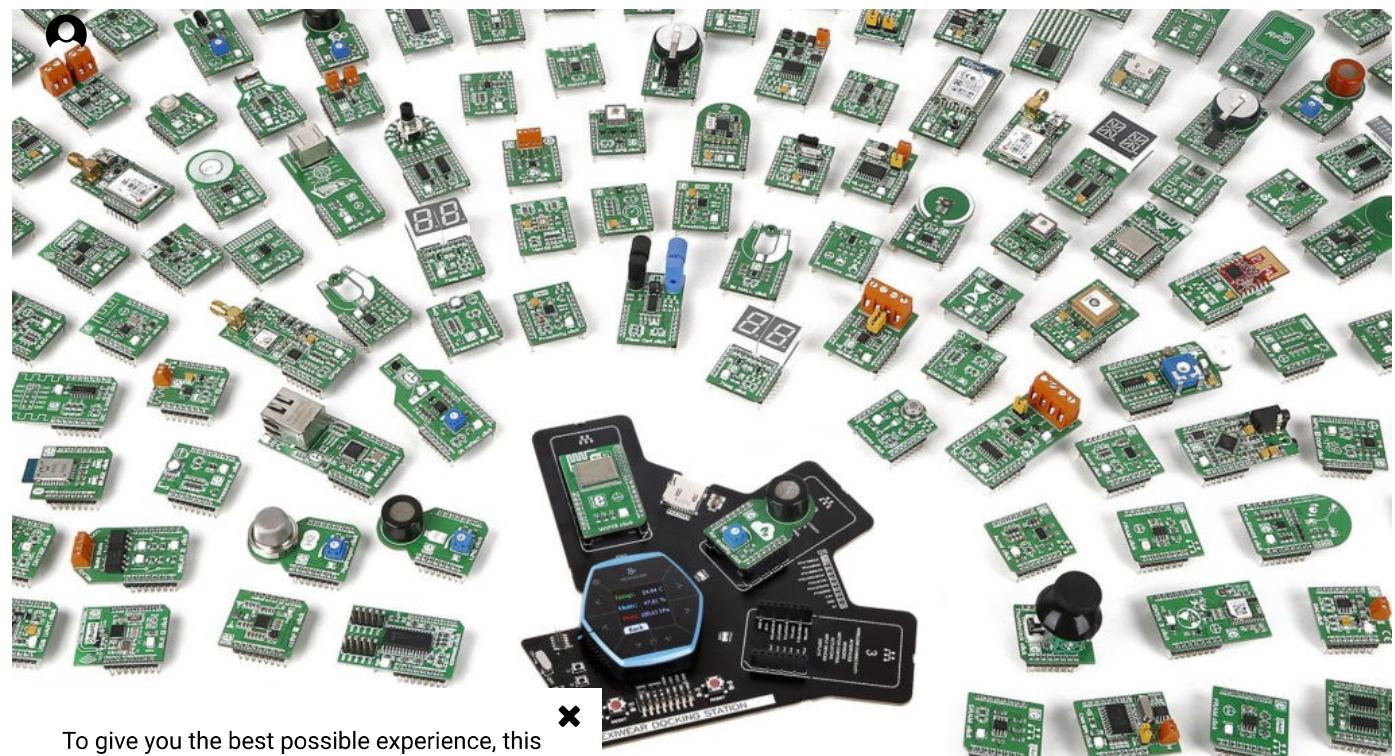
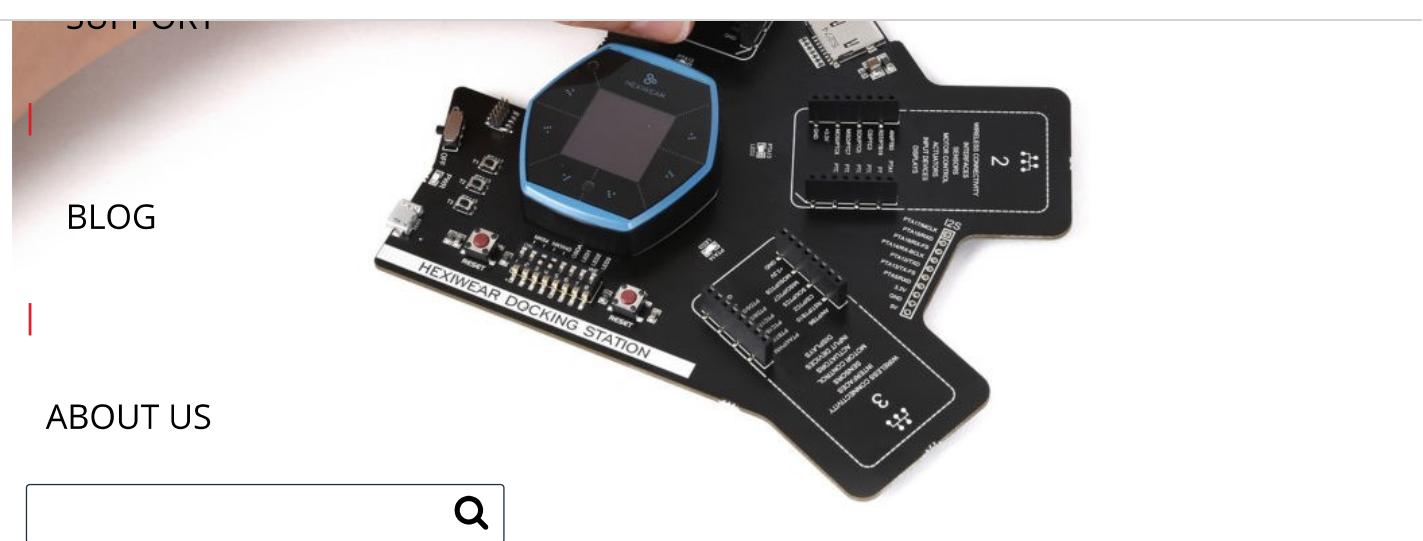


Available as a printable [PDF file](#)

[Got it!](#)

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories



To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

**Got it!**

Hexiwear's potential as a development tool. Hundreds of Click Boards, encoders and interfaces are available on click boards – in various sizes and form factor.

---

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

Accessories

features a mass storage device (MSD) bootloader.

Learn more in the [official user guide](#).

## BLOG Troubleshooting

### Docking station appears as "MAINTENANCE" when connected to PC

If you have connected the Docking station to your PC, and it appears as "MAINTENANCE" without holding [RESET](#) button while turning the Docking station on, there are two possible reasons why this is happening.

I  corrupted "DAPLINK" OpenSDA firmware, and you

can easily load the firmware again, just follow next steps:

-Download hex file of the firmware from the following link:

[https://github.com/MikroElektronika/HEXIWEAR/tree/master/HW/HEXIWEAR\\_DockingStation](https://github.com/MikroElektronika/HEXIWEAR/tree/master/HW/HEXIWEAR_DockingStation)

-Just copy it to the "MAINTENACE" mass storage.

II) Second possible reason is that you somehow erased, or corrupted one of the MCUs that is turned on on the DIP switch on the Docking station at the moment. This is happening because if your Hexiwear's MCU is empty, the docking station with the Hexiwear on it would appear in "MAINTENANCE" mode.

#### What you should do is this (In case that MK64 is erased):

Turn off all switches on the Docking station except of the OSDA, which needs to be turned on. Connect the Docking station with Hexiwear on it to your PC and then turn the Docking station on.

While the Docking station itself is turned on, put the MK64 switches in the ON position, and use our [mikroProg suite for ARM](#) to write this bin file to Hexiwear's MCU:

[https://github.com/MikroElektronika/HEXIWEAR/blob/master/SW/MK64%20KDS/HEXIWEAR\\_MK64/binary/HEXIWEAR\\_MK64.1.000.bin](https://github.com/MikroElektronika/HEXIWEAR/blob/master/SW/MK64%20KDS/HEXIWEAR_MK64/binary/HEXIWEAR_MK64.1.000.bin)

To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy](#).



re:

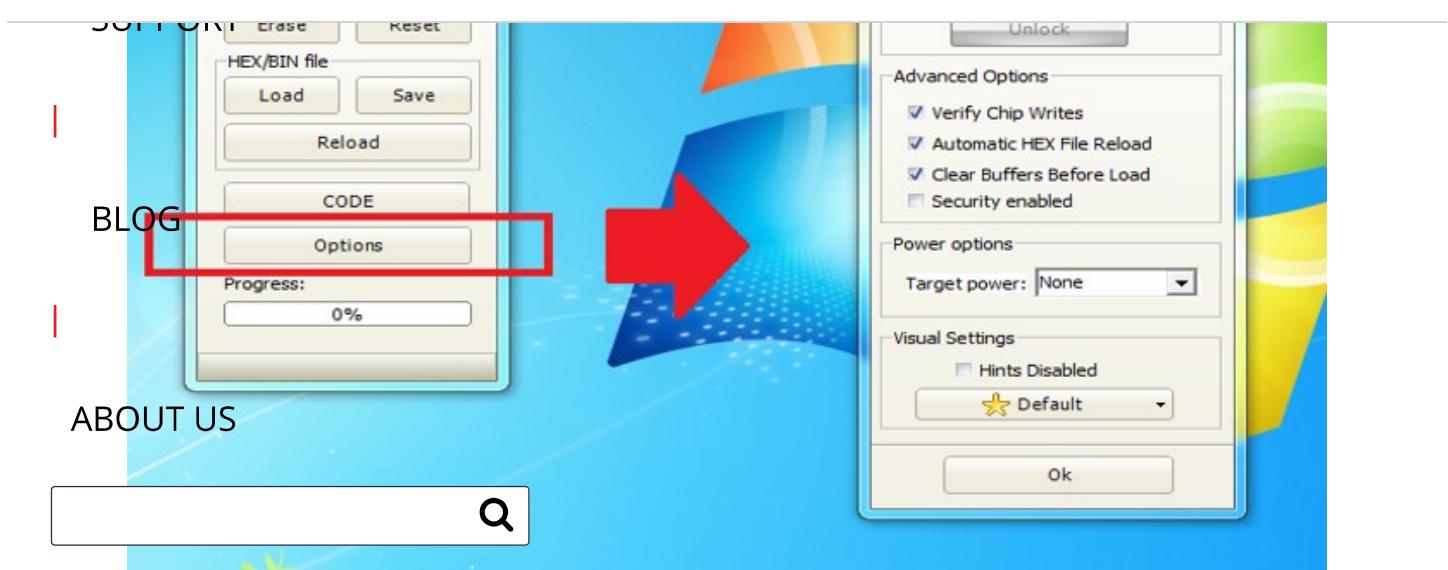
[mikromedia-software/mikroprog/arm/mikroprog-suite-arm-](#)

order to program the Hexiwear:

[Got it!](#)

Click Boards | Compilers and Software Tools | Development Boards | Programmers and Debuggers |

## Accessories



 Note that you will have to install mbed serial driver for your Docking station. If you didn't already do that, you can download drivers from here:

<https://developer.mbed.org/handbook/Windows-serial-configuration>

## Resources

- [Hexiwear product page](#)
- [Hexiwear User Guide](#)
- [OpenSDA User Guide](#)
- [mikroBUS standard specifications](#)

## Share this post



To give you the best possible experience, this site uses cookies. Using our site means you're agreeing to our use of cookies. We have published a new cookie policy, which you should read to find out more about the cookies we use.

[View cookies policy.](#)

[Got it!](#)