

**Device Connect  
Vuzix M100 demo UI application  
instruction manual**

**Version 1.0  
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## 1. Introduction

This document, Vuzix M100 method of introducing the demo UI application using the Device Connect API, and will explain how to operate.

## 2. For M100 demo environment

I will show the current M100 demo requirements below.

1. Get from Heart Rate data smartphone and BLE connected Mio Alpha.
2. The obtained Heart Rate data and displays it in the Vuzix M100 on the screen.
3. The camera captured images of Vuzix M100 at the same time, I will display at PC.

As M100 demo environment, we have assumed the following configuration.

• Used equipment

Vuzix M100 (OS2.2)

Mio Alpha

Android smartphone (OS 4.3 or higher)

PC (Windows7 or more, or, MAC OS X)

Wireless LAN router (using the ASUS RT-AC87U In operation test)

Shows the demo configuration diagram below.

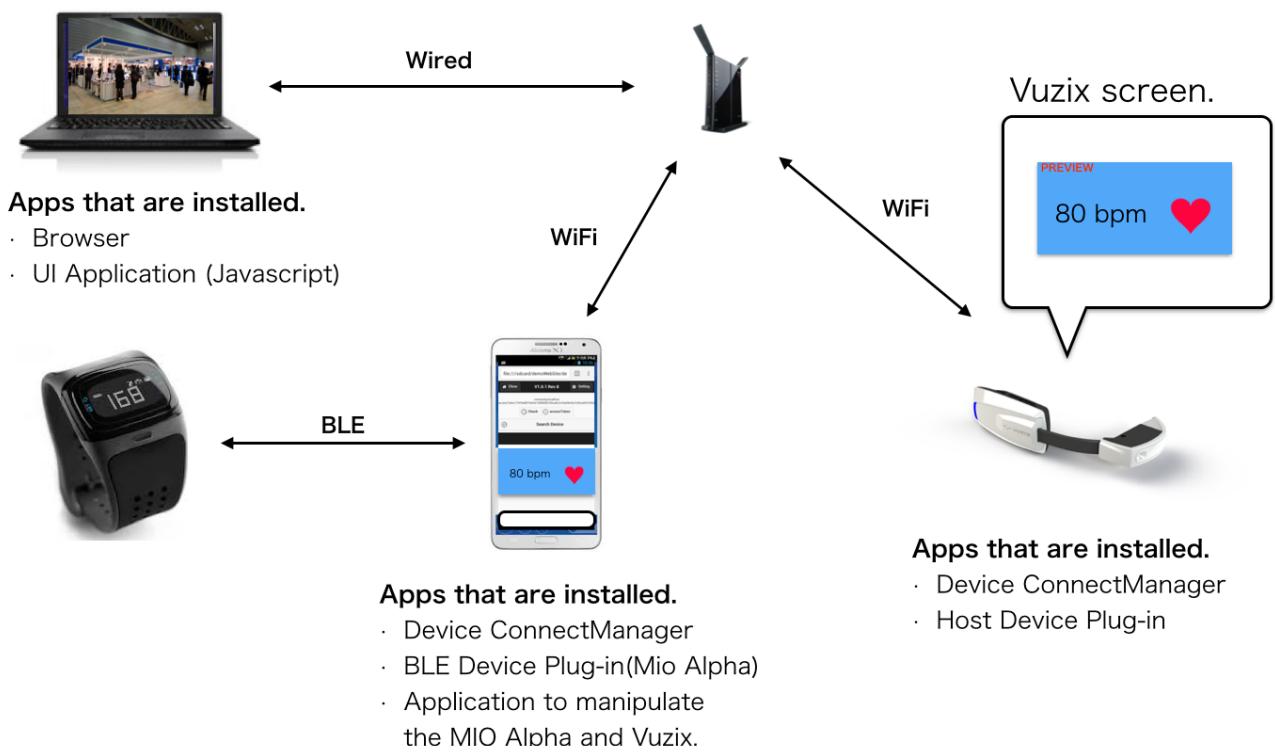


Figure 1 demo configuration diagram

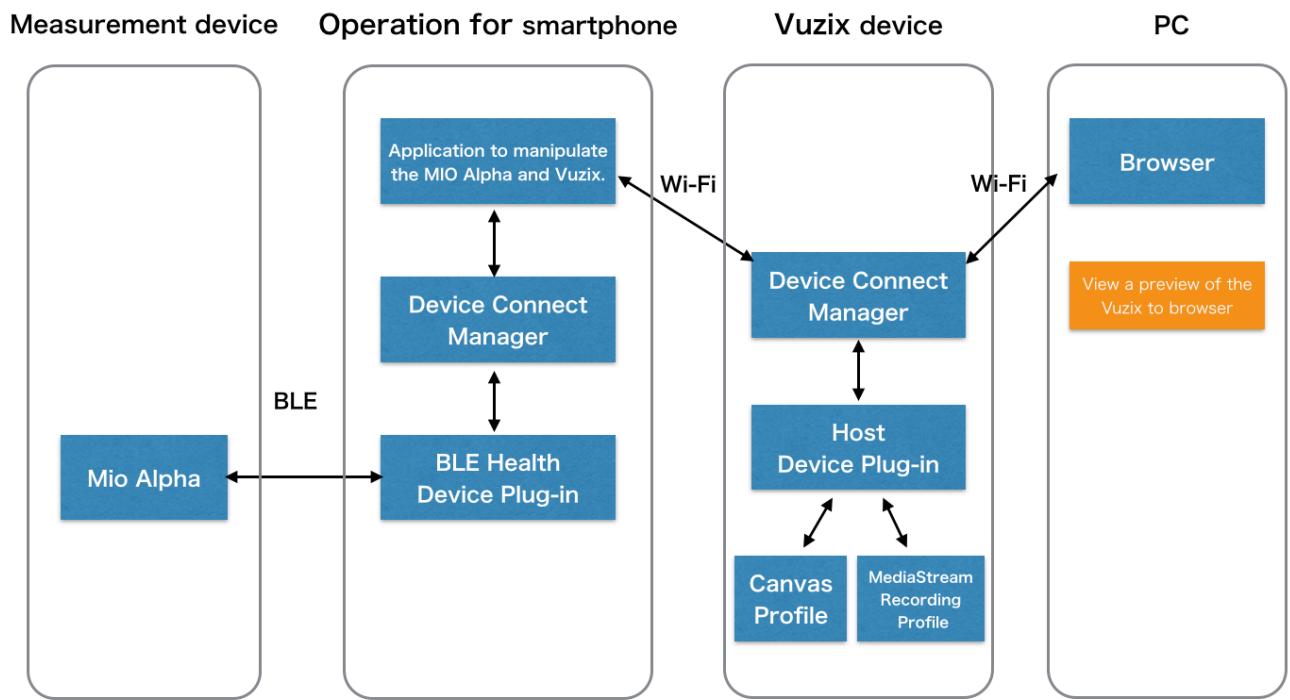


Figure 2 Device Connect plug-in cooperation Figure

### 3. Installation of "M100 demo UI application"

#### 3. 1 Installation on Vuzix M100

For installation on Vizux M100, you can do the installation in the publication of the procedure in "How to try WebAPI in M100" in the M100 product page.

<http://www.vuzix.jp/m100-webapi-setup.html>

In this page, you start from the description to download the installation package from the appropriate link, this part is omitted, please use this demonstration for the package.

Follow the installation instructions, please install the "Device Connect Manager" and "Host plug-in".

#### 3. 2 Installation on smartphone

##### 3. 2. 1 Transfer of the demo package to smartphone

This time of the demo for the package, and then transferred to the smartphone to operate.

For the transfer of files, Windows, in the MAC, different procedure.

In the case of Windows

- Make sure that the terminal of the screen is unlocked.
- Connect to the PC terminal with a USB cable.
- When you are prompted to select the USB connection in the terminal and then select media device (MTP)].
- Was displayed in a pop-up as well PC and other external devices using the File Transfer window, you can drag and drop the demonstration package.
- By releasing the connection from the Windows terminal, remove the USB cable.

In the case of MAC

To transfer files, you need to install the Android File Transfer to a PC.

Android File Transfer, you have Mac OS X 10.5 or later and Android 3.0 and later compatibility.

- Download and install the Android File Transfer to a personal computer.  
<https://www.android.com/filetransfer/>
- Open the Android File Transfer (If you connect the next terminal, it will automatically open).
- Make sure that the terminal of the screen is unlocked.
- Connect to the PC terminal with a USB cable.
- When you are prompted to select the USB connection in the terminal and then select media device (MTP)].
- Was displayed in a pop-up personal computer using the [Android File Transfer] window, and then drag and drop the demonstration package.
- When you are finished you can remove the USB cable.

### 3. 2. 2 Installation of Device Connect related packages

Subsequent work will be similar to the operation from the browser made in "3.1 Installation of the Vuzix M100".

Browser's URL is: "file:///sdcard/demoWebSite/index.html".

Follow the installation instructions, please install the "Device Connect Manager" and "BLE device plug-ins (Mio Alpha)".

### 3. 3 Installation on PC

Installation on the PC, the time of the demonstration package, and store it in any directory.

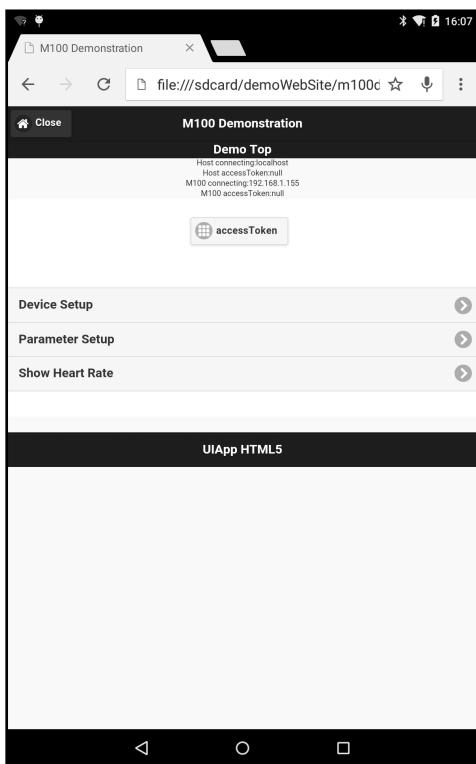
4. Execution of "M100 demo UI application"
4. 1 Starting the "M100 demo UI application"

**Operation from here, I will do with the operation for smartphones.**

Open the following files from the smartphone browser.

file:///sdcard/demoWebSite/m100demo.html

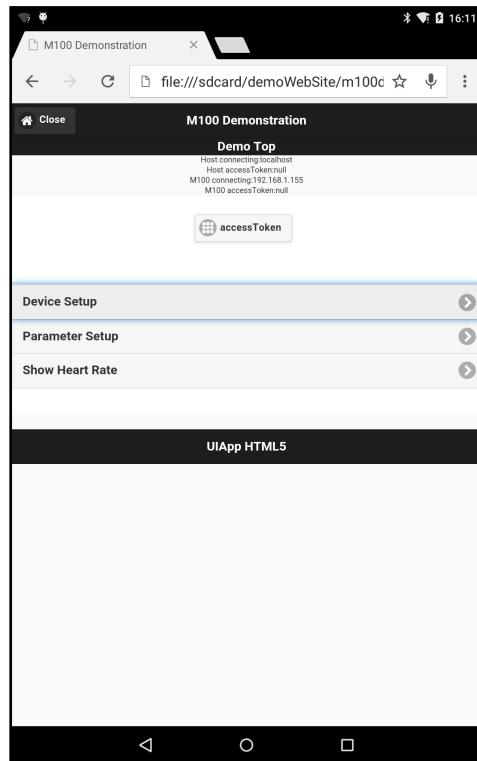
M100 is displayed "Demo Top" demo UI application.



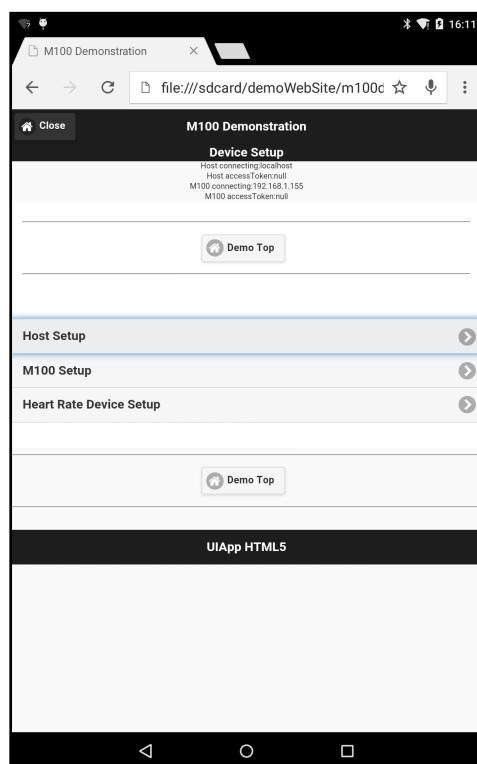
## 4. 2 Host-related settings

You can set the information, and the like for connecting to the Host (operation for smartphones).

Click the "Device Setup" from the "Demo Top".



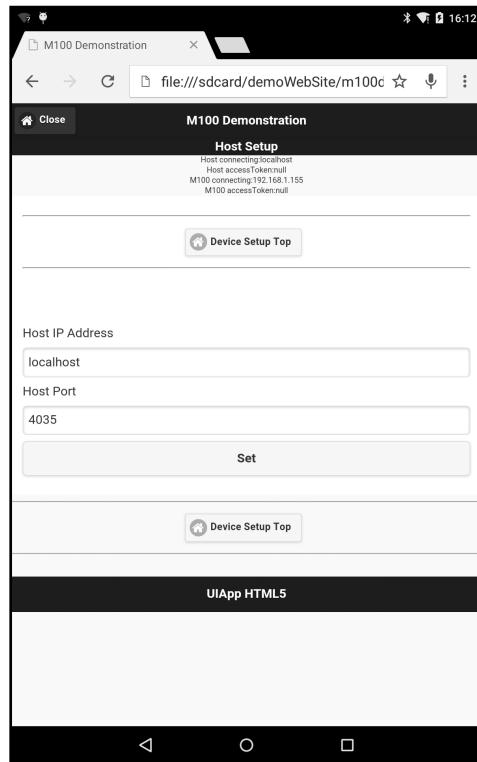
Displayed the "Device Setup" and then click the "Host Setup".



Displayed the "Host Setup", in the "Host IP Address", I enter the IP address of the operation smartphone. If you have set on the operation for the smartphone and then as "localhost". (The default is to this setting.)

After setting, press the "Set" button.

※ "Host Port", there is no need of setting.



When you press the "Set" button, will be displayed authentication confirmation dialog of Local Auth to smartphone, please press the "Agree" button.

(Smartphone authentication screen)

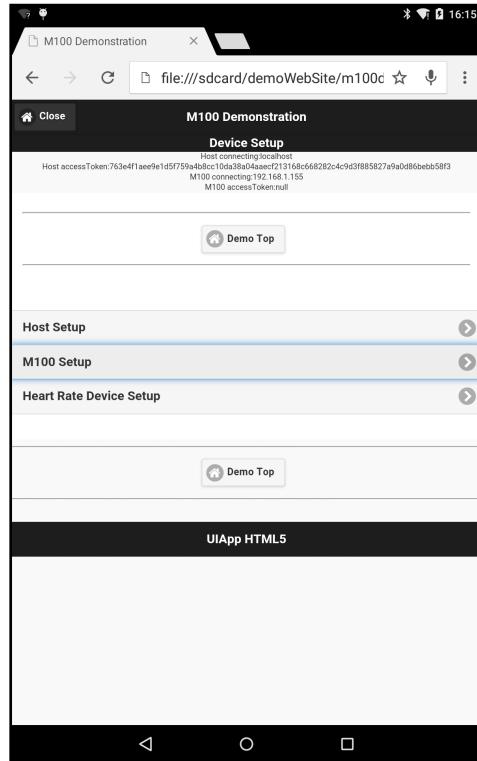


When you have finished authentication Press the "Device Setup Top" button to close the "Host Setup" screen.

#### 4. 3 M100-related settings

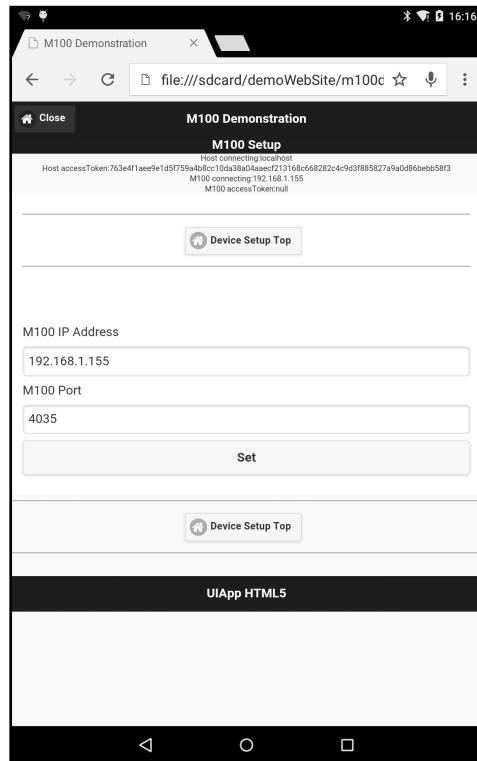
Set the information, and the like for connecting to the M100.

Click the "M100 Setup" from the "Device Setup".



Displayed "M100 Setup" is, in the "M100 IP Address", enter the IP address of the M100, and then press the "Set" button.

※ "M100 Port", there is no need of setting.



When you press the "Set" button, authentication confirmation dialog of Local Auth because appears in the M100, please press the "Agree" button.

(M100 authentication screen - state that it is focused on the "Agree")

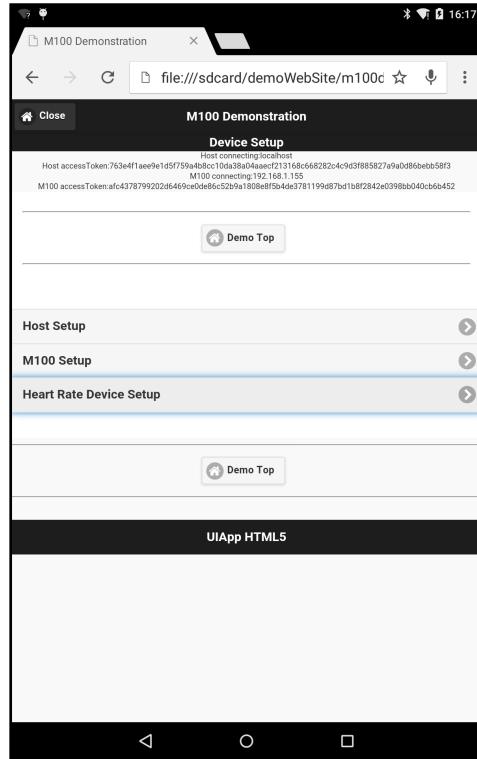


When you have finished authentication Press the "Device Setup Top" button to close the "M100 Setup" screen.

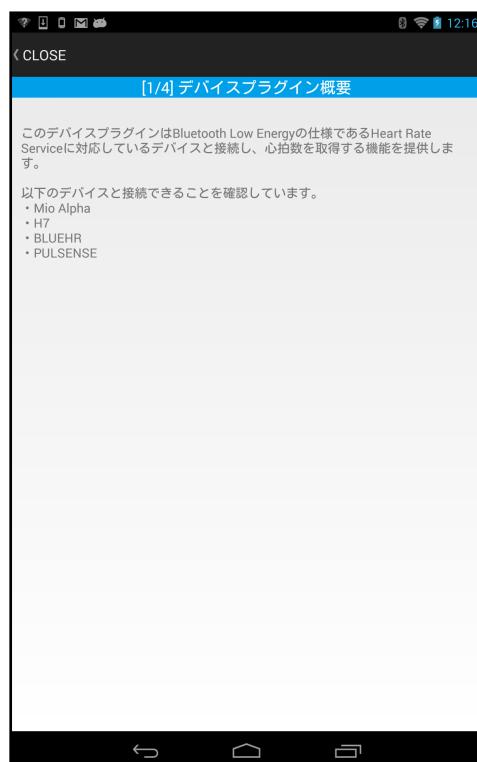
#### 4. 4 Mio Alpha-related settings

Set the information, and the like for connecting to the Mio Alpha.

Click the "Heart Rate Device Setup" from the "Device Setup".



Overview screen is displayed in the "BLE device plug-in". Move by left swipe to the next screen.



Description screen prompting the preparation of Mio Alpha appears.



Here, by mounting the Mio Alpha, and then press and hold until the "HR" button of the body (to the right of the button) is "FIND" is displayed on the screen.



When the heart rate display is started, and then move the screen smartphone by left swipe to the next screen.

Description screen prompting the Bluetooth to ON will be displayed.

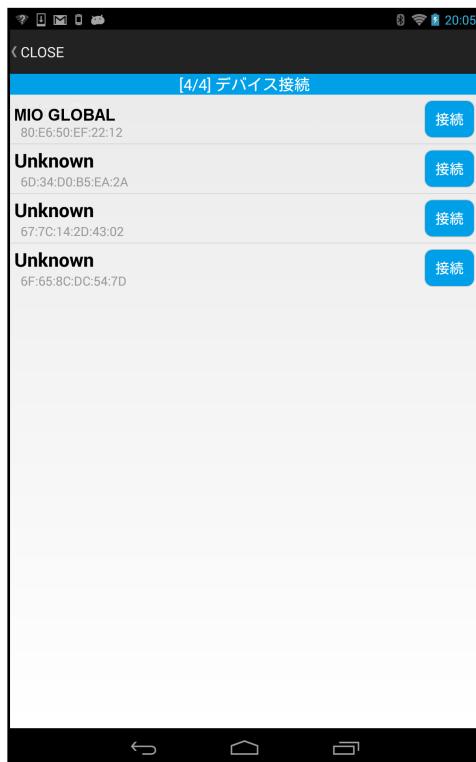


If the Bluetooth is turned OFF, please turn it ON in the Click to "Bluetooth" screen to "open the configuration screen."

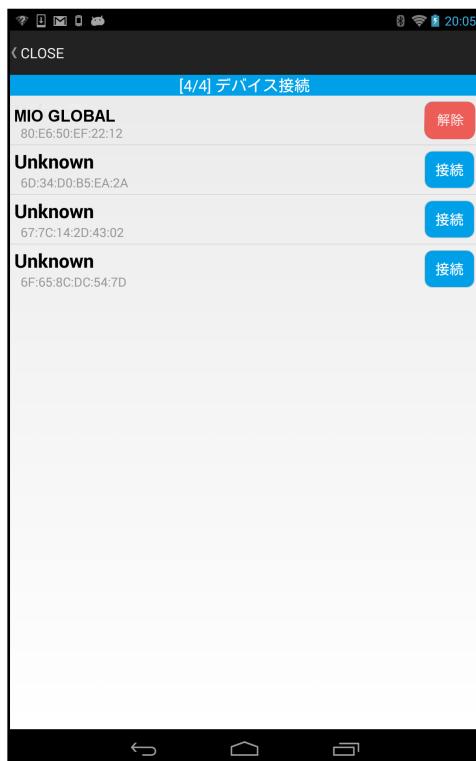
If you have Bluetooth can of ON confirmation, and then move to left swipe to the next screen.

If you have Bluetooth can of ON confirmation, and then move to left swipe to the next screen.

Screen of the device connection is displayed.



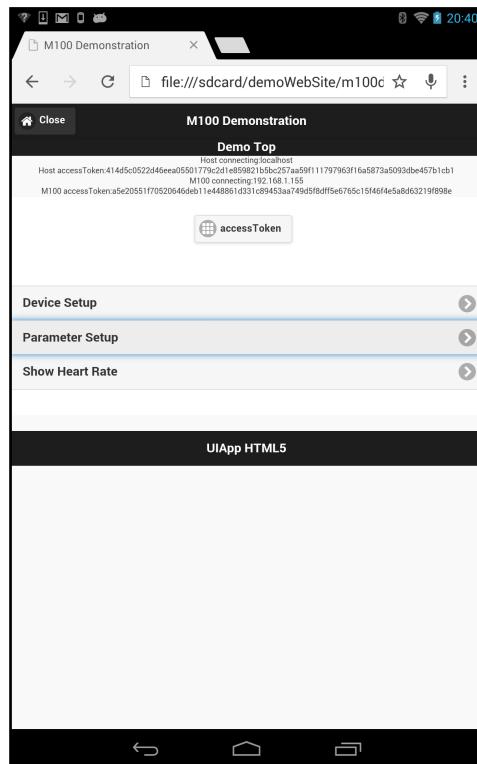
Here, you can press the "Connect" button of the detected Mio Alpha, you can make the connection in the BLE. (It is detected as MIO GLOBAL.)



When the button is changed, Press the top left screen "CLOSE". Screen will return to the demo UI application. Since the "Device Setup" is displayed, to go back by pressing the "Demo Top".

#### 4. 5 Demo for setting parameters

Set the parameters of the Heart Rate display relationship.  
Click the "Parameter Setup" from the "Demo Top".



"Parameter Setup" will be displayed.



Each setting, you can set the upper limit, the lower limit in the slide bar. In addition, the upper limit value, you can also edit the numerical display of the lower limit values directly.

Color bar, will be the display background color when the heart rate has reached the exercise intensity range. Is color picker is displayed by clicking, you can be set to any color by pressing the selection, or "Detail View" button from the provisions color.



(Pressing the "Detail View")



In this screen, setting of the following parameters.

#### [Exercise intensity (Normal)]

Set the lower limit / upper limit of exercise intensity (normal value).

#### [Exercise intensity (Warm up)]

Set the lower limit / upper limit of exercise intensity (warm-up).

#### [Exercise intensity (Fitness)]

Set the lower limit / upper limit of exercise intensity (fitness).

#### [Exercise intensity (Cardio)]

Set the lower limit / upper limit of exercise intensity (aerobic exercise).

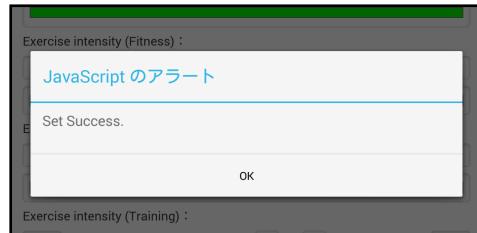
#### [Exercise intensity (Training)]

Set the lower limit / upper limit of exercise intensity (training).

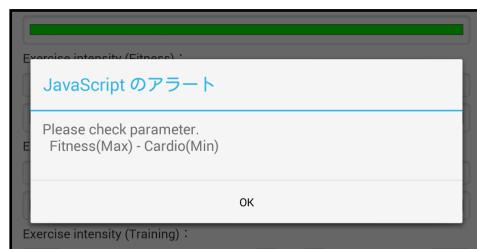
"Default" button returns all of the parameters to their default values.

When you are finished, press the "Set" button.

It checks the setting, if you had been set correctly, "Set Success." And dialog appears, save the settings.



If the setting range is incorrect, so will display a dialog box prompting you to confirm, please check the display parameters.

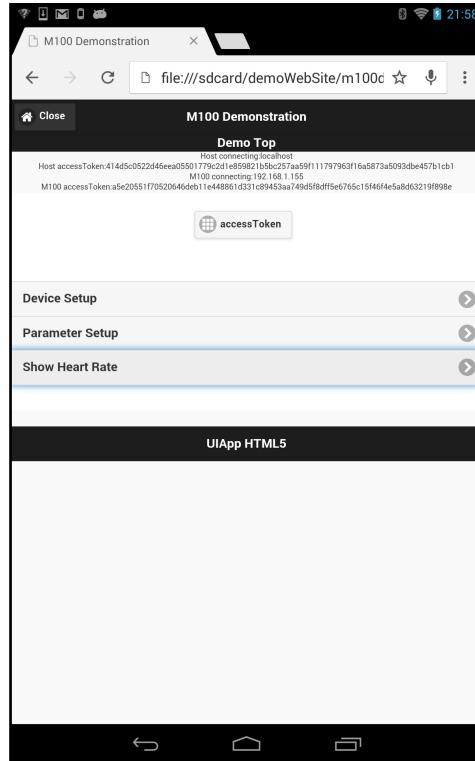


When you have finished setting up, I press the "Demo Top" button.

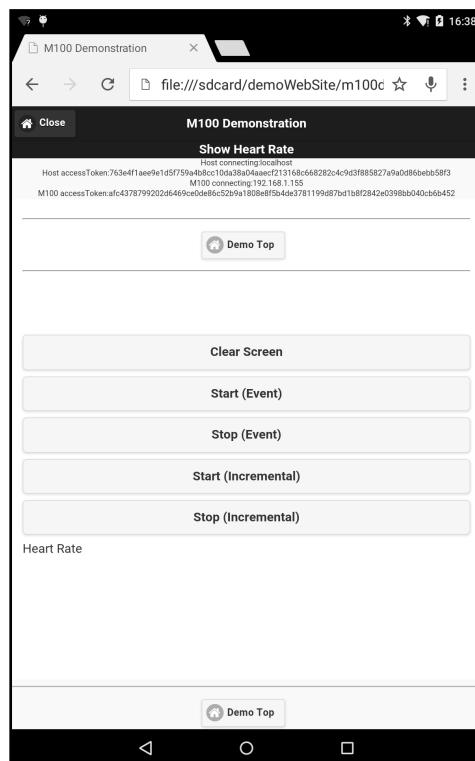
## 4. 6 Display of Heart Rate

Display of the Heart Rate.

Click the "Show Heart Rate" from the "Demo Top".



"Show Heart Rate" will be displayed.



The following buttons have been installed for the Heart Rate display.

[ Clear Screen ]

Erase the Heart Rate display that appears in the M100.  
At the same time, I will erase Heart Rate display on the browser.

[ Start ( Event ) ]

Set the Heart Rate data reception events from Mio Alpha.  
Upon receipt of the Heart Rate data, the Heart Rate will be displayed.

[ Stop ( Event ) ]

Release the Heart Rate data reception events. Display update I will stop.

[ Start ( Incremental ) ]

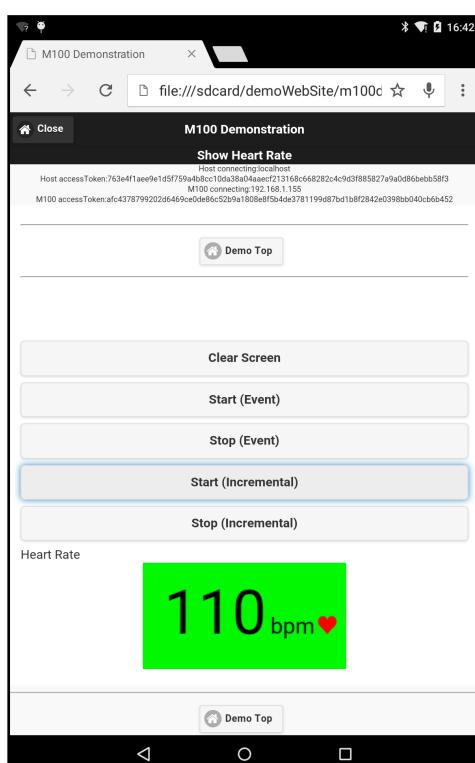
Continuously changed in the range Heart Rate is 40 to 160 in 500mSec interval,  
display is performed. When it reaches the 160, to return to the 40, and repeat this.

By exercise intensity is used to confirm that the background color is changed.

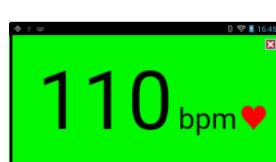
[ Stop ( Incremental ) ]

Stop the above operation. Display update I will stop.

Heart Rate display cases (smartphone side):

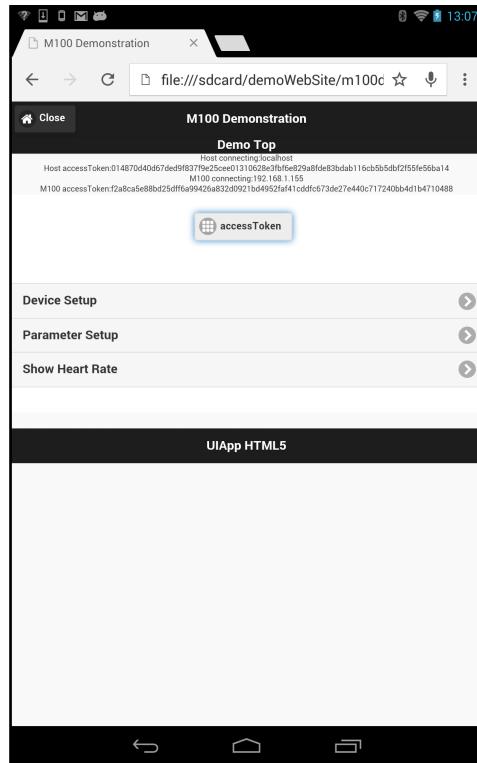


Heart Rate display cases (M100 side):



#### 4. 7 For re-acquisition of accessToken

When you press the "accessToken" button in the "Demo Top", to Host, M100, make the acquisition of accessToken.



Reacquisition, please be performed in a state in which stop the event. When from Mio Alpha Press this button during HeartRate data event reception, will not be able to release events, please note that you will need to restart the M100.

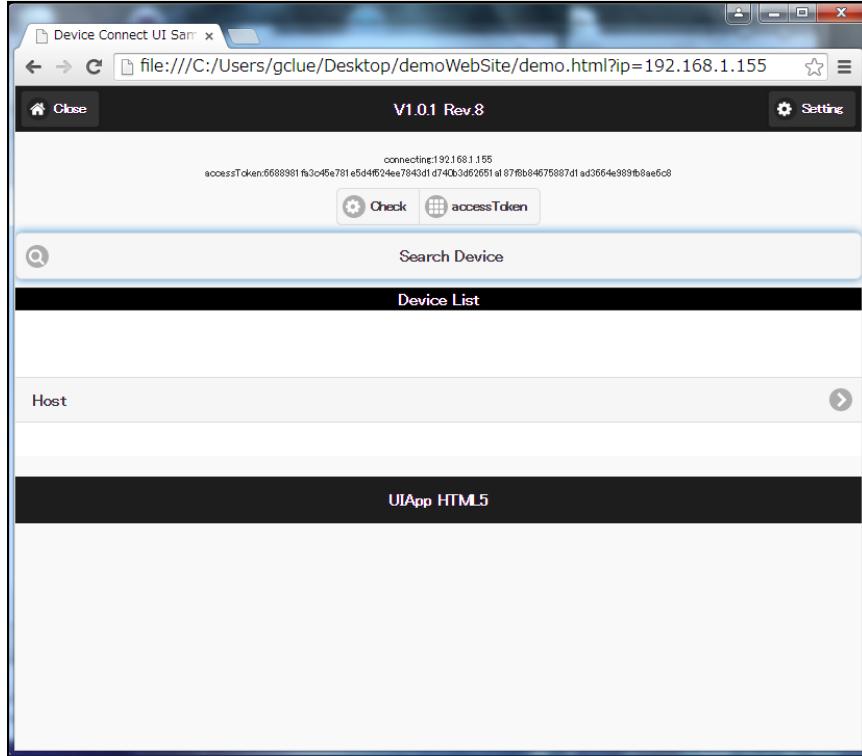
5. Display of the preview of the video camera

5. 1 Start of "demoWebSiteUI application"

**Operation from here, will be made in PC to perform the preview display.**

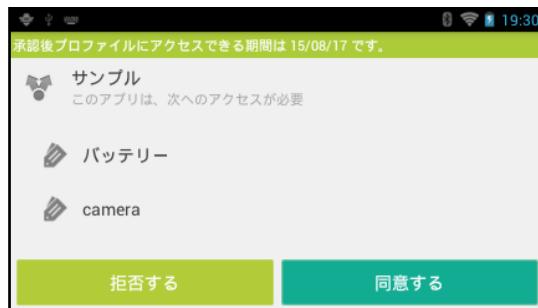
Open the following files from the PC browser.

file:/// (The transferred directory) /demoWebSite/demo.html?ip= (M100 IP address)



Screen of demoWebSiteUI application is displayed.

At the same time display and, will be displayed authentication confirmation dialog of Local Auth for Device Connect Manager at M100 side, please press the "Agree" button.  
(M100 authentication screen - state that it is focused on the "Agree")



※ If previously you are running the Heart Rate display, authentication confirmation dialog, because that would be hidden in the Heart Rate display, please go in the state in which to stop the Heart Rate display.

## 5. 2 Preview run of camera video

When you click on the "Host" from the "Device List", you will see the "Profile List" of Host.

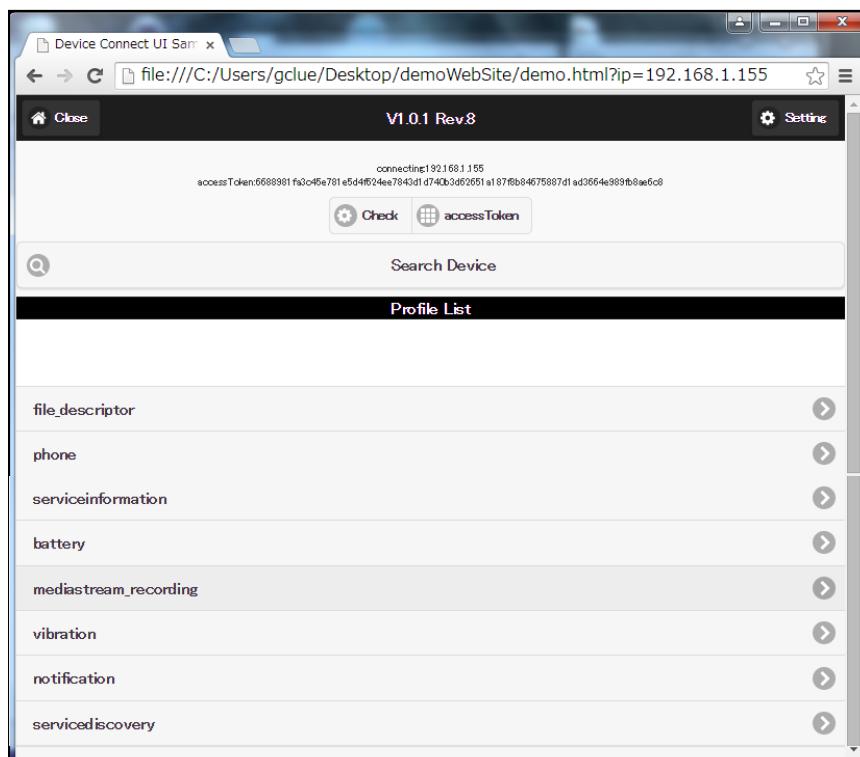
In this case, at first in M100 side, will be displayed authentication confirmation dialog of Local Auth against Host device plug-in, please press the "Agree" button.

(M100 authentication screen - state that it is focused on the "Agree")



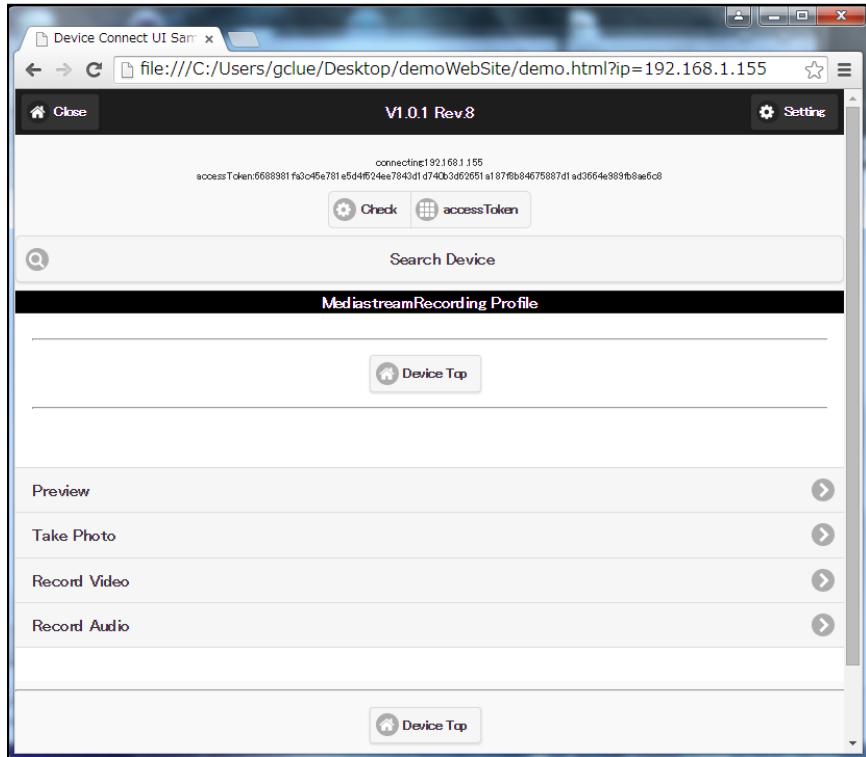
※ If previously you are running the Heart Rate display, authentication confirmation dialog, because that would be hidden in the Heart Rate display, please go in the state in which to stop the Heart Rate display.

Click the "mediastream\_recording" from the "Profile List".

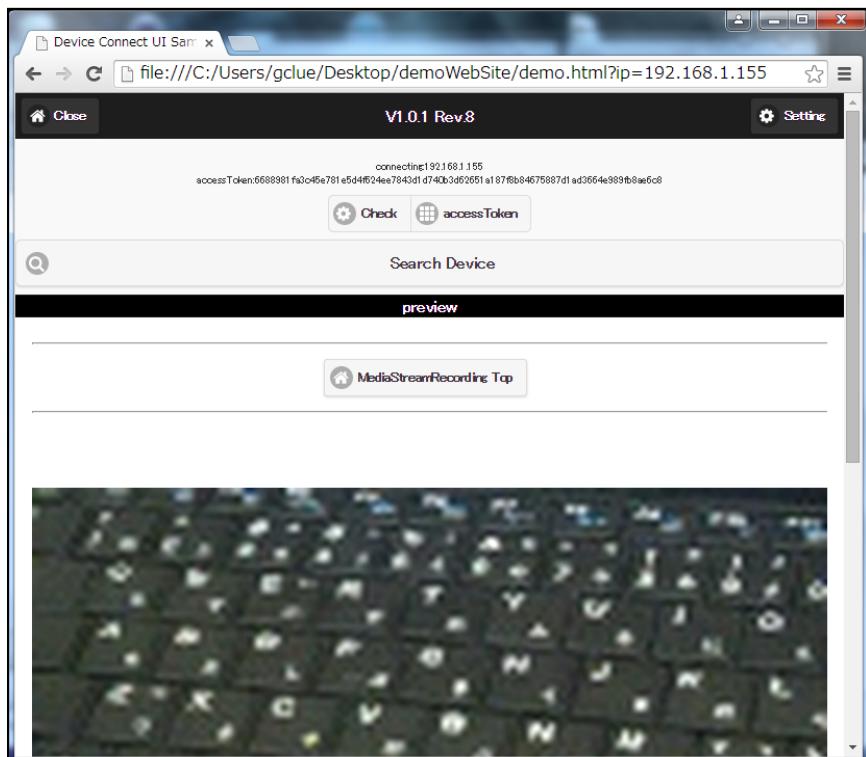


"MediaStreamRecording Profile" screen appears.

Click the "Preview" from the "MediaStreamRecording Profile".



"Preview" screen appears, displaying a preview of the camera image of M100.



If you want to end the preview of the video camera, press the "MediaStreamRecording Top".

## 6. Troubleshooting

### 【During demo UI application installation】

- If you want to install this demo environment, the legacy of Device Connect related applications, all please uninstall. Depending on the version mismatch, there are times when it does not work properly.
- In the case of local files, because it does not use the cookie of web browser, does not take place save settings. Since you will be each time enter the IP Address, etc. of M100, we recommend that you set in advance as the default setting to "m100demo.js".

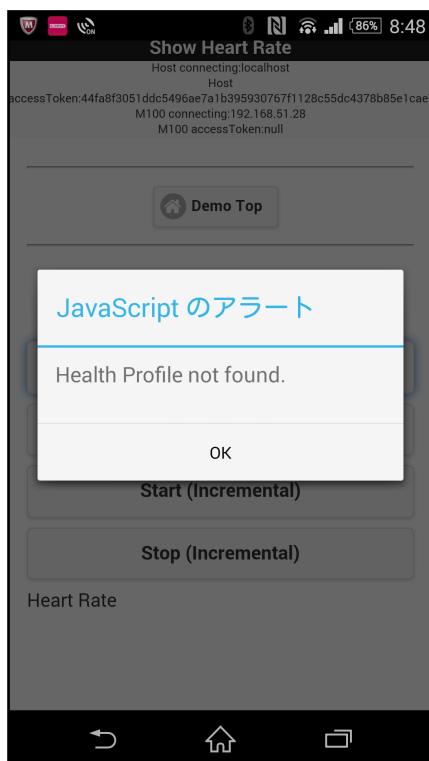
[ m100demo.js - Line 10 ]

```
// M100 IP Address.  
var devlpAddr = "192.168.1.155";
```

### 【Demo UI application operation】

- When the Wi-Fi, etc. will be in an unstable state, preview of the video camera you may cut off. In this case, it is possible to perform the OFF / ON of Wi-Fi, and you can be restored.
- If the BLE connection with the operation for smartphone and Mio Alpha has become unstable, please try the Bluetooth of OFF / ON of operation for the smartphone.
- During the preview of the video camera, you may accessToken is stalls is to become and (such as pressing a accessToken acquisition button) preview display of camera image change. In this state, since the sessionKey for canceling the event in the display is lost and can not be performed preview.  
By clicking on the string (the left side of the screen top) called ". Preview" that is displayed on M100 in preview, you will be able to stop the M100 side of the preview behavior.  
Cursor movement to this string, because it does not allow you to adjust the focus in operation by M100 body, please use the M100 operation for applications (Vuzix Smart Glass Manager). In addition, if the operation is difficult, please reboot the M100.
- Heart Rate of Canvas display to be displayed on the M100, which can be erased in the M100 body of back key operations (as determined key length press).
- Rarely can not access to the M100 camera event has been confirmed. In this case, please reboot the M100.

- When the camera preview on the PC side browser, to perform a preview start immediately after preview stop (continuously stop, if such was the operation of the start), the preview screen may not be displayed.  
In this case, by performing a reload by pressing the reload button of the browser, it will be able to be displayed.
- When you press the "Start (Event)" button, "Health Profile not found." Is displayed dialog that, if the heart rate display is not performed.



When BLE communication with Mio Alpha is in a state that has been cut, is the dialog displayed by pressing the "Start (Event)" button.

Usually reconnection process is done automatically. You will be re-connected in about 20 to 30 seconds, please perform the following steps if you do not lead even wait any more.

- Please do the communication release / connection of Mio Alpha in the plug-in configuration screen.
- If the heart rate display does not return in the above action, the right button Press and hold the Mio Alpha, by the end / start of Exerciser size mode, it will attempt to reconnect BLE communication of Mio Alpha.
- If the heart rate display does not return in the above operation, from Bluetooth settings screen smartphone terminal, I will do the Bluetooth of OFF / ON.
- If the heart rate display does not return in the above operation, do the restart of the smartphone terminal.

— END —