#### Some variables init

```
initialize global UUID_Service to 49535343-fe7d-4ae5-8fa9-9fafd205e455 *

② initialize global UUID_TX to 49535343-8841-43f4-a8d4-ecbe34729bb3 *

③ initialize global UUID_Notification to 49535343-1e4d-4bd9-ba61-23c647249616 *

initialize global DeviceAddress to 0

initialize global IsConnected to 6 false 1 initialize global FirstReadDone to 6 false 1 initialize global FirstReadDone to 6 false 1 initialize global GreenState to 0

initialize global GreenState to 0

initialize global GreenState to 0
```

## Start scanning

```
when btnBLEStartScan . Click

do set lbIDevices . Text to "Searching..."

call BluetoothLE1 . StartScanning

set Clock1 . TimerInterval to 1000

set Clock1 . TimerEnabled to true .

set global timerInterval to 0
```

### Stop scanning

```
when btnCancelScan ▼ .Click

do set lblDevices ▼ . Text ▼ to □ " Idle... "

set ConnectTo ▼ . Enabled ▼ to □ false ▼

call BluetoothLE1 ▼ .StopScanning

set Clock1 ▼ . TimerEnabled ▼ to □ false ▼
```

### Device found

```
when BluetoothLE1 DeviceFound

do set IbIDevices Text to BluetoothLE1 DeviceList

set ConnectTo ElementsFromString to BluetoothLE1. DeviceList

set ConnectTo Enabled to true

set Clock1 TimerEnabled to false
```

Button "Connect to..." is a list picker

# Event Connected, Register for Notification

```
when BluetoothLE1 . Connected

do set btnDisconnect . Enabled to true . set txtStatus . Text to . join . Connected; Device address = "get global bleDevcieADDRESS . set txtReceivedMsg . Text to . ""

set global IsConnected to true . set global IsConnected to true . get global UUID_Service . get global UUID_Service . get global UUID_Notification . get global UUID_Notification . set WBZ451_IOT . Visible to true . set wBZ451_IOT . Visible . set wBZ451
```

## **Event disconnected**

```
when BluetoothLE1 .Disconnected

do set txtStatus . Text to "Disconnected "

set btnDisconnect .Enabled to false set global IsConnected to false call Notifier1 .ShowAlert

notice "Device disconnected "

set WBZ451_IOT .Visible to false
```

### Receiving from WBZ451

Packet received are encapsulated in (message) need to removed them Filter on rcv message "+RGB: R g B". Upper case is ON, lower case is OFF. Set appropriate variable, and change ledButton background. Filter on rcv message "+TEMP:"

If NONE above, just display in txtReceivedMsg txtBox

```
when BluetoothLE1 .StringsReceived
 serviceUuid characteristicUuid stringValues
do 2 set global tempText v to 0 join replace all text
                                                         segment ( " () "
    if contains v text get global tempText v
                    piece ( * +RGB: *
    then set global tempText v to | O join (
                                                       get global tempText -
                                                       +RGB:
          if contains text get global tempText
                         piece ( * R *
          then set redButton . BackgroundColor to
              set global redState v to
          else set redButton ▼ . BackgroundColor ▼ to
              set global redState v to 0
          if contains v text get global tempText v
                          piece 'G'
          then set greenButton . BackgroundColor to
              set global greenState - to 1
          else set greenButton ▼ . BackgroundColor ▼ to
              set global greenState v to 0
          get global tempText v
                                 ·B.
                          piece
          then set blueButton ▼ . BackgroundColor ▼ to ()
               set global blueState v to 1
          else set blueButton . BackgroundColor to
              set global blueState v to 0
          contains v text ( get global tempText v
                   piece ( " (+TEMP) "
    then set global tempText v to join
                                                        get global tempText -
                                         replace all text
                                                        +TEMP:
                                              segment
                                           replacement [ " | " | "
         set (temperatureLabel ▼ . Text ▼ to | get global tempText ▼
         set [xtReceivedMsg ▼ . Text ▼ to | get global tempText ▼
```

Sending +STATUS to WBZ451 using Clock2(100mSec) event. When WBZ451 received this message, it sends back the le "+RGB: r G B", upper case for ON, lower case for OFF

```
when Clock2 .Timer

do if BluetoothLE1 . IsDeviceConnected then call BluetoothLE1 .WriteStrings serviceUuid characteristicUuid utf16 values join ("+STATUS:"
```

Sending Message button to WBZ451

```
when btnSendMsg .Click
            BluetoothLE1 - IsDeviceConnected -
    then Digitif
                       txtMessage ▼ . Text ▼ ≠ ▼
           then call BluetoothLE1 .WriteStrings
                                                   get global UUID_Service 🔻
                                      serviceUuid
                                characteristicUuid
                                                    get global UUID_TX >
                                           utf16
                                                   false -
                                                              +MESSAGE:
                                                             txtMessage ▼ . Text ▼
                 call Notifier1 		■ .ShowAlert
                                             "Please enter Message?
           call Notifier1 .ShowAlert
                                        You are not connected????
```

# Sending RED\_LED button

```
when redButton .Click
do 👩 if
             BluetoothLE1 - IsDeviceConnected -
     then 🔯 if
                   get global redState = = = |
                                                   1
           then call BluetoothLE1 .WriteStrings
                                      serviceUuid
                                                    get global UUID_Service >
                                 characteristicUuid
                                                    get global UUID_TX -
                                            utf16
                                                    false 🔻
                                                    🧔 join
                                          values
                                                              " +LED_RED:OFF
                                                              " (n) "
                 call BluetoothLE1 .WriteStrings
                                                    get global UUID_Service -
                                      serviceUuid
                                 characteristicUuid
                                                    get global UUID_TX >
                                            utf16
                                                    false 🔻
                                                    🤯 join
                                          values
                                                              " (+LED_RED:ON) "
                                                              " (n) "
     else call Notifier1 .ShowAlert
                                         You are not connected
```

# Sending GREEN\_LED button

```
when greenButton . Click
do if BluetoothLE1 - IsDeviceConnected -
                 get global greenState = 1
                call BluetoothLE1 .WriteStrings
                                   serviceUuid
                                                get global UUID_Service >
                              characteristicUuid
                                                get global UUID_TX -
                                        utf16
                                               false 🔻
                                       values
                                                🧔 join
                                                         " (+LED_GREEN:OFF) "
                                                         " (n "
                call BluetoothLE1 .WriteStrings
                                   serviceUuid
                                                get global UUID_Service >
                              characteristicUuid
                                                get global UUID_TX -
                                        utf16
                                               false 🔻
                                       values
                                                🧔 join
                                                         " (+LED_GREEN:ON) "
                                                         " (n) "
    " You are not connected "
```

# Sending BLUE\_LED button

```
when blueButton - .Click
do 🔯 if
            BluetoothLE1 - IsDeviceConnected -
           if
                       get global blueState - = -
                                                    1
                  call BluetoothLE1 .WriteStrings
                                      serviceUuid
                                                    get global UUID_Service -
                                 characteristicUuid
                                                    get global UUID_TX -
                                                    false -
                                                    ioin 🔯
                                                              " (+LED_BLUE:OFF)
                                                              " \n "
                  call BluetoothLE1 .WriteStrings
                                      serviceUuid
                                                    get global UUID_Service -
                                                    get global UUID_TX -
                                 characteristicUuid
                                            utf16
                                                    false -
                                                    🧔 join
                                                              " (+LED_BLUE:ON) "
                                                              " \n "
         call Notifier1 .ShowAlert
                                        You are not connected
```