

# Application Note

## Using your Android smartphone to control UPB with the RUC2

### Introduction

The Web Mountain RUC2 (Remote Universal Controller) can be used to control your lights and appliances using UPB, or Universal Powerline Bus. The RUC2 can easily be setup to control these devices based on time of day, via triggered events, or from a webpage on your personal computer. Then the RUC2 makes it extremely simple to control your automation devices from your Android or iOS smartphone or tablet.

This application note will explain how to use a smartphone or tablet along with the RUC2 to control your lights and appliances.

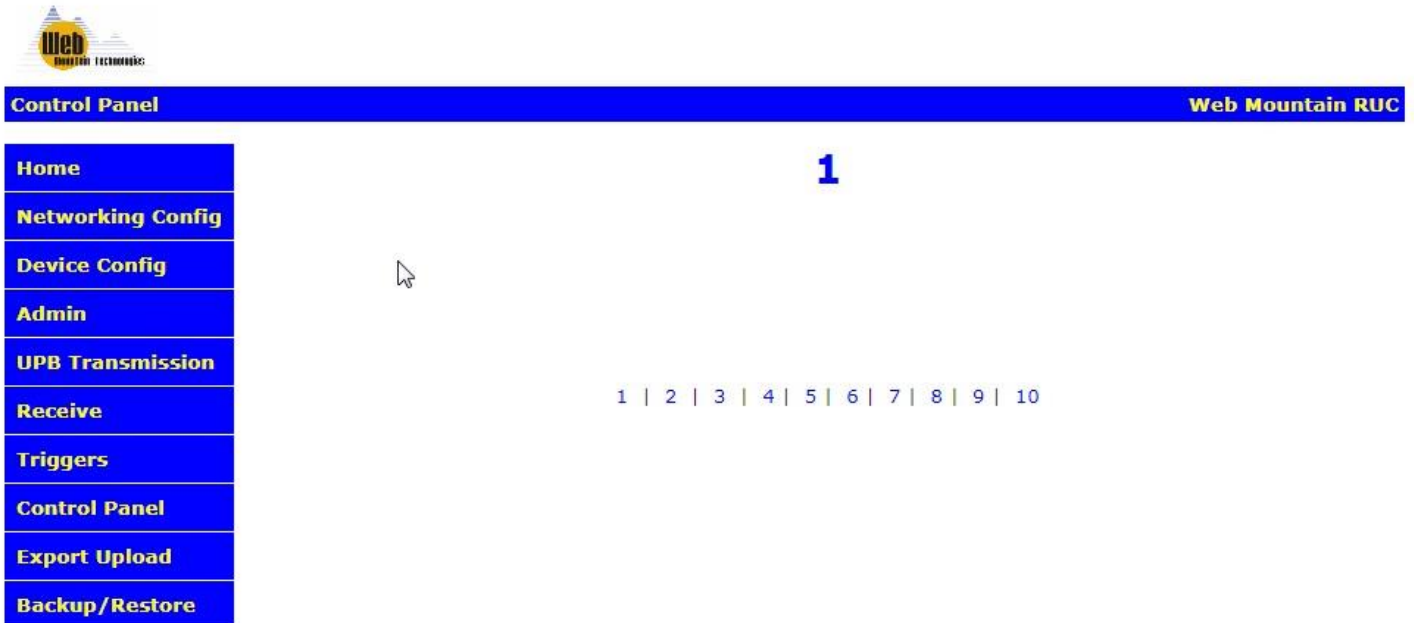
It is assumed that the reader has some familiarity with the desired home automation technology. If not, it is highly recommended that the reader perform the necessary research to gain this familiarity.

### Procedure

The first step in setting up the RUC to work with the smartphone or tablet is to get the RUC2 setup to control devices.

**NOTE:** It is highly recommended that if you are going to use the RUC2 with your smart device, that you give the RUC a fixed IP address. This makes the address known and the RUC easily accessible.

While the RUC2 has many available user options, we are only concerned with the Control Panel functionality for this exercise. The Control Panel is a webpage on the RUC2 that can be accessed from any browser. This webpage allows the user to have a simple touchpanel like screen to easily control automation functions. When you click on the page for the first time, you will see the following:



To add buttons to this screen, you will use the Trigger screen, select Button as the Receive Command type, then use the Send Command box to determine what action will occur when the button is pressed.

Let's add a button that will turn on the Kitchen Lights (DID 5) for a NID of 12.

On the Trigger page, select Button as the Receive command type. Type in a Trigger Name (Kitchen Lights On). Select the page number (in this case, page 1). Select the button # (in this case, let's use button #1). Then, enter the text you want displayed on the button (in this case "Kitchen Lights On" – does not have to match the Trigger Name above).

Buttons are in two columns of 5 with button 1 being upper left, button 5 being lower left, button 6 being upper right, and button 10 being lower right. Buttons will only display once they are added using the Triggers page.

Now, select UPB Direct in the Send command type drop down box. Select the port the serial PIM is connected to (normally this will be COM1). Then, edit the NID text box to be 12, the DID to be 5, and the command to be Activate. Before the Add Trigger button is clicked, the screen will look like this:

## Triggers

The screenshot shows a web-based configuration interface for triggers. It is divided into two main sections: "Receive Command" and "Send Command".

**Receive Command Section:**

- Command Type:** A dropdown menu set to "(B) Button".
- Trigger Name:** A text input field containing "Kitchen Lights On".
- Page #:** A dropdown menu set to "1".
- Button #:** A dropdown menu set to "1".
- Display Text:** A text input field containing "Kitchen Lights O".

**Send Command Section:**

- Command Type:** A dropdown menu set to "(D) UPB Direct".
- Port:** A dropdown menu set to "(1) COM1".
- NID:** A text input field containing "12".
- DID:** A text input field containing "5".
- Other Device:** A dropdown menu set to "Other Device".
- CMD:** A dropdown menu set to "Activate".

At the bottom of the form is a large button labeled "Add Trigger".

Click on the Add Trigger button, then select View All next to the Buttons – View Page(s) under Trigger list and the trigger now shows up in the trigger listing like this:

# Trigger List

Buttons - View Page(s) View All ▾

Kitchen Lights On  
Page: 1 Button: 1 Text: Kitchen Lights On  
Direct: 5, Command: Activate  
NetworkID #12 | Com Port: 1

[Run](#) [Edit](#)  
[Delete](#)

Now, click on the Control Panel page from the left menu, and the page looks like this:

Control Panel Web Mountain RUC

Home  
Networking Config  
Device Config  
Admin  
UPB Transmission  
Receive  
Triggers  
Control Panel  
Export Upload  
Backup/Restore

Kitchen Lights On

1

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

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Now, if the button is clicked from a browser accessing this page, the RUC will send out a UPB command to turn on the Kitchen lights.

Up to 10 buttons can be added on each of the four pages.

Notice that the page is labeled “1”. This can be changed. Left click on the “1” on this screen, and a popup window will appear. In the text box in this popup, you can enter in the desired text for this page, for example, Kitchen, or Living Room, or Exterior.

After clicking entering in the new name in the popup text box, and clicking ok, here is the revised Control Panel page (the browser page will need to be refreshed in order to see the changed label):

- Home
- Networking Config
- Device Config
- Admin
- UPB Transmission
- Receive
- Triggers
- Control Panel
- Export Upload
- Backup/Restore

## Kitchen



Kitchen | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

Notice that the label also changed on the bottom of the page while the other pages are still shown with their page numbers.

Just repeat the procedure above and add buttons wherever desired. To navigate among pages, just click on the labels on the bottom. For example, to go to page 3, click on the “3”.

Continue to setup as many of the 40 buttons (4 pages times 10 buttons per page) as you wish.

There’s another way to select devices in the Send section of the Triggers page that uses the UPE export file from Upstart. This will automatically populate dropdowns so that you can select devices rather than manually entering them. For more details on this, see the full RUC2 user manual.

### Setting up the Smartphone or tablet

By using the Control Panel, and the WMT freely available Universal Home Automation Controller app, there is a way to make the RUC work with your smartphone or tablet. The smartphone will act as simple user interface, and when buttons are pressed on the screen, a signal is sent to the RUC which tells the RUC that a button has been pressed and to take a specific action, such as turning on a light.

Ok, now that you have the RUC’s Control Panel configured, we can setup the smart device. Here is the procedure for setting up the app on your smart device.

The smartphone or tablet is set up completely on the device. Nothing is done via a computer.

- 1) Go to this link from your Android smartphone / tablet (or search for “home automation controller” in the android market) - <http://market.android.com/details?id=com.webmtn.android.app>.
- 2) For the iPhone / iPad, go to <https://itunes.apple.com/us/app/universal-home-automation/id639479362?ls=1&mt=8>.

Screenshot of the Android website shown below:

The screenshot shows the Android Market interface for the 'Home Automation Controller' app. At the top, the 'Android Market' logo is on the left, and navigation links for 'ANDROID APPS' and 'BOOKS' are on the right. Below the header, the app's title 'Home Automation Controller' and developer 'Web Mountain Technologies, LLC' are displayed. A lightbulb icon represents the app, with a rating of 0 stars and an 'INSTALL' button. A 'RELATED' section lists 'Memo Widget (Note Widget)' and 'Zillow Real Estate'. The main content area features a 'DESCRIPTION' tab, a 'Tweet' button, and detailed text about the app's functionality and requirements. On the right, an 'ABOUT THIS APP' section provides metadata such as rating, update date, version, and price.

ANDROID MARKET · LIFESTYLE · HOME AUTOMATION CONTROLLER

## Home Automation Controller

Web Mountain Technologies, LLC

★★★★★  
(0 ratings)

INSTALL

### RELATED

- Memo Widget (Note Widget)**  
SUNJAE, LEE / LIFESTYLE  
★★★★★ (1,846)  
Free
- Zillow Real Estate**  
ZILLOW.COM / LIFESTYLE

### DESCRIPTION

Use this app in conjunction with the Web Mountain Technologies RUC-01 to control home automation devices using UPB, Zwave, X10, Insteon, ESI drapery Controllers, and almost any other home automation technology with a serial interface. This app allows the user to control lights and appliances with a simple touch of a button from their Android smartphone. This app also allows the user to control Ethernet IP based devices that can be managed using POST commands, such as thermostats.

In order to use this app, you will need the RUC-01(version 57 or higher), the appropriate serial interface unit for the technology you will be controlling, plus appropriate control devices, such as wall dimmer switches, lamp modules, appliance modules, and drapery motor controls.

For more details, see [www.webmtn.com](http://www.webmtn.com) or contact us at [info@webmtn.com](mailto:info@webmtn.com)

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#### ABOUT THIS APP

RATING: ★★★★★

UPDATED: April 23, 2011

CURRENT VERSION: 1.0.0.1

REQUIRES ANDROID: 2.2 and up

CATEGORY: Lifestyle

SIZE: 61k

PRICE: Free

2) Click the install button in the upper right.

3) The phone will then tell you that this app requires permissions. It only shows "Network Communication: Full Internet Access". This is because we communicate to the RUC via a network. Accept these permissions.

4) The app will begin installing. When it is done, open the app (Universal Home Automation).

5) Here is the website for the iOS device. Install the app as you normally do.

# Universal Home Automation

[View More By This Developer](#)

By Terry Bolinger

Open iTunes to buy and download apps.



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[Terry Bolinger Web Site](#) [Universal Home Automation Support](#)

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View In iTunes

This app is designed for both iPhone and iPad

Free

Category: Lifestyle  
Released: May 02, 2013  
Version: 1.0.15  
Size: 3.9 MB  
Language: English  
Seller: Terry Bolinger  
© TDB Partners, LLC  
Rated 4+

**Requirements:** Compatible with iPhone 3GS, iPhone 4, iPhone 4S, iPhone 5, iPod touch (3rd generation), iPod touch (4th generation), iPod touch (5th generation) and iPad. Requires iOS 5.0 or later. This app is optimized for iPhone 5.

## Customer Ratings

We have not received enough ratings to display an average for the current version of this application.

## Screenshots

iPhone | iPad



6) The first time the app runs, it will show a disclaimer. Read, then click OK.

7) Now, the app will show the settings page, or go to your Settings. New in this version is the ability to setup the app to work automatically when either local or remote.

a. In the first line, Remote Host/IP, enter in the IP address or DDNS host name used remotely. For the Remote IP address, use the remote IP address from the Networking Configuration page, which will be [www.wmtremote.com:10xxx](http://www.wmtremote.com:10xxx). See the back of your RUC2 unit for the exact port.

b. On the second line, Local Host/IP, use the IP address on your local LAN. Typically, this is going to be 192.168.xxxx.xxx, or 10.0.xxx.xxx.

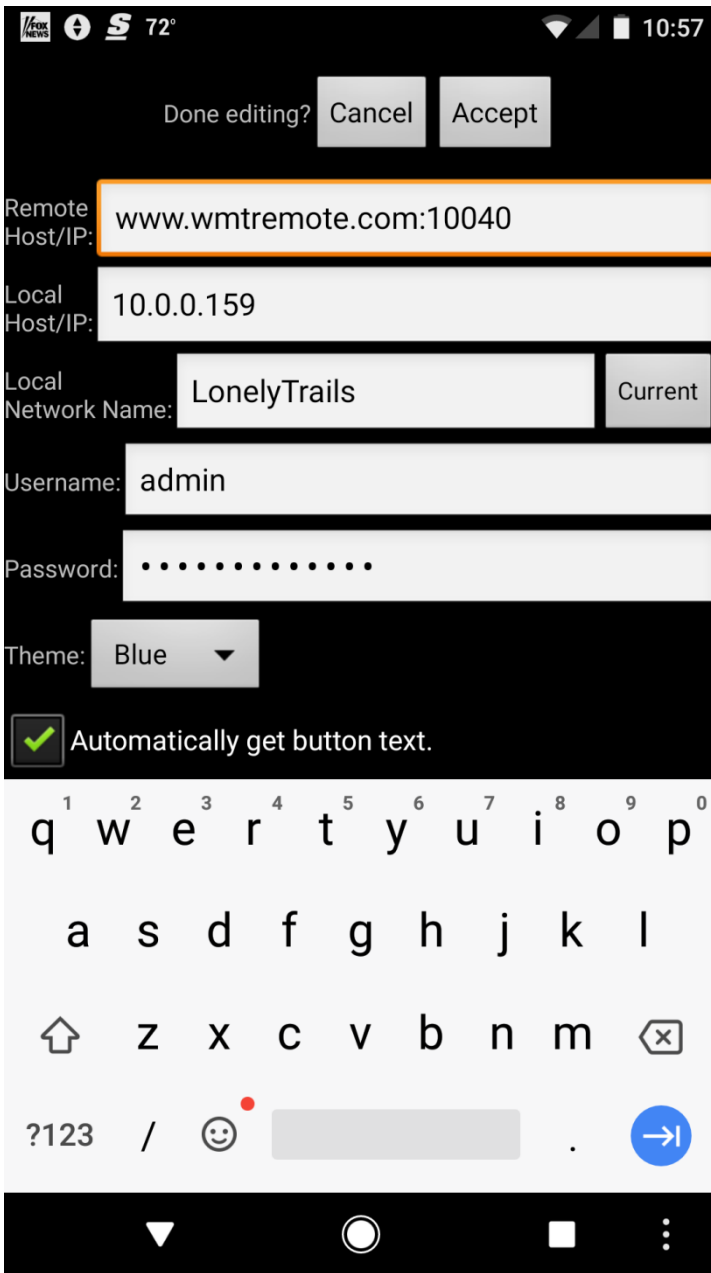
c. Next, pick the wireless LAN network name you use at your home or residence. If you have your smartphone connected to this WLAN at this time, just click the Current button, and the app will populate this field for you. Now, when the Smartphone or tablet is connected to this wireless LAN, the app will use the address specified in the LOCAL field. For any other connection mechanism, the app will use the Remote field information. Now you no longer need to manually update the settings fields depending on how you're connected with your smartphone.

d. Enter in the admin user and the password for your RUC2 for the admin user.

Also, if you check the box "Automatically get button text" (actually checked by default), the app will use the button labels you have setup on the RUC. If you uncheck this box, you will have the ability to rename the buttons and pages. Just recognize that even if you rename the buttons, the buttons,



when pressed, will do the same function as how they are programmed on the RUC. The following graphic shows you the settings page:



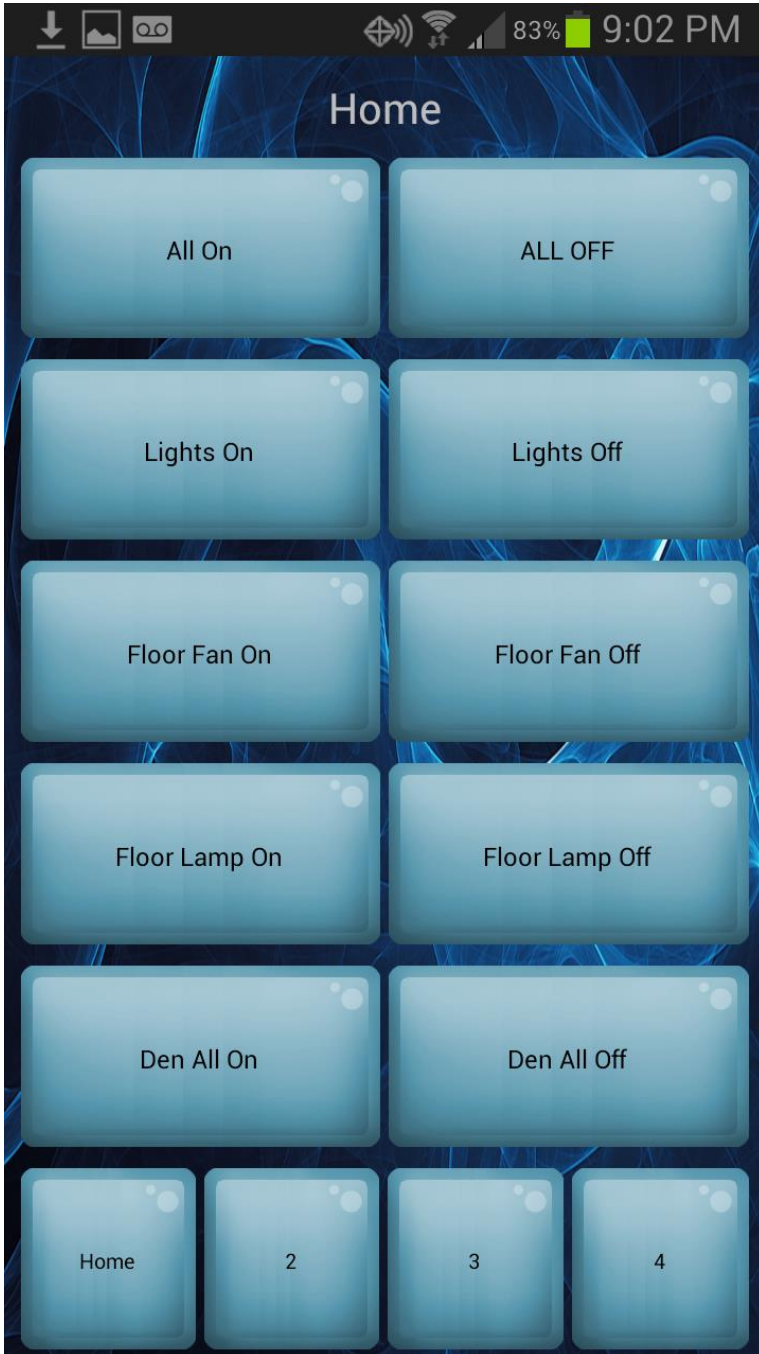
Also, notice that you can pick the color theme from blue, green, or red.

Click Accept.

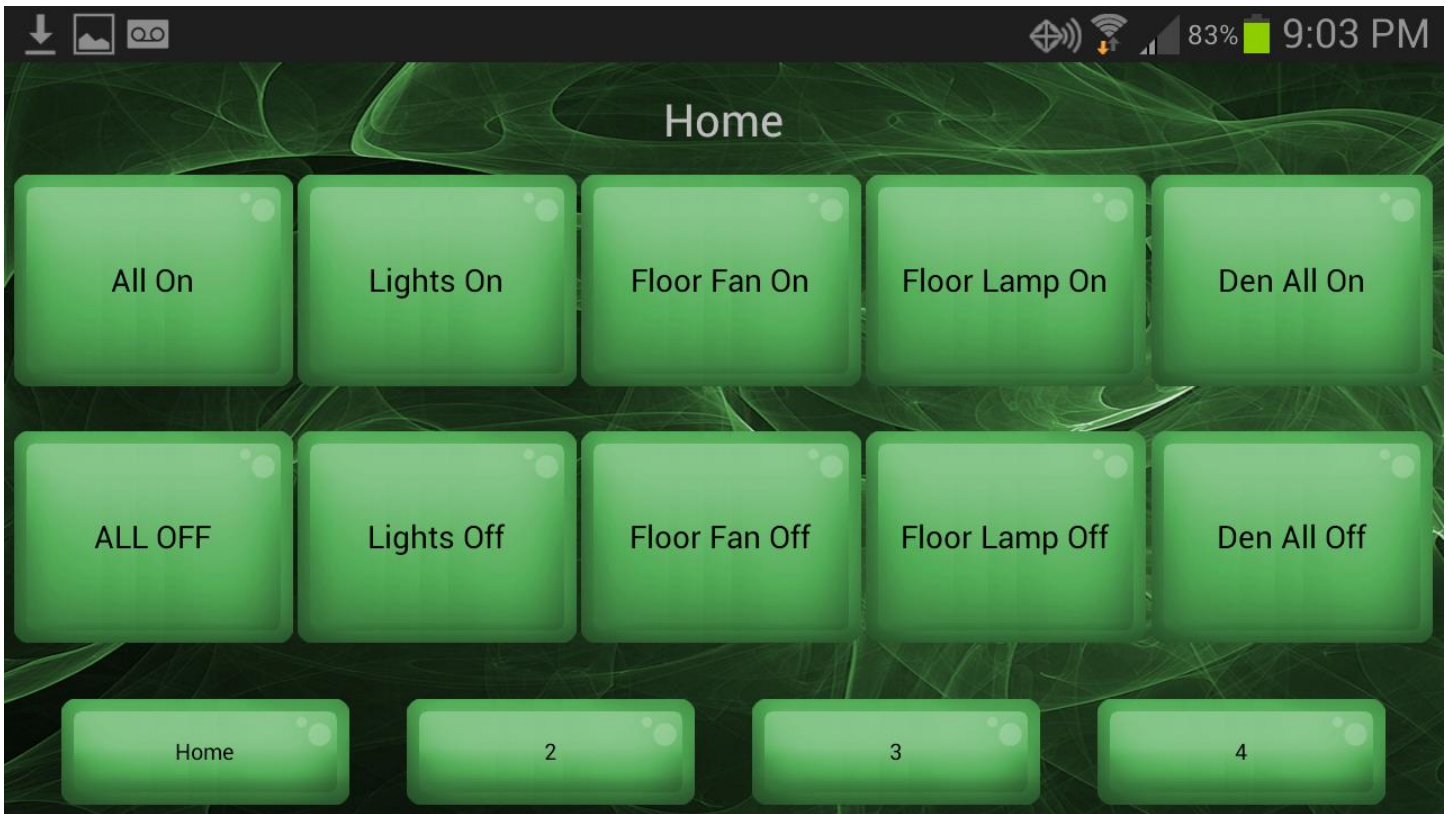
8) You can enter the settings page again at any time by pressing the menu button on the app and choosing settings.

9) Any time (after the first time) you open the app it will return to the last control panel page you were on (without showing the disclaimer or the settings page).

Here are screenshots of what your app's screen will look like in the vertical and horizontal orientations:







To control your lights just press the desired button.

Have fun!