BlinkUp Troubleshooting

The most common reasons for unsuccesful BlinkUp:
- Incorrect Wifi password
- Failure to hold screen completely against card edge to completely block out ambient light.

When configuring your device with BlinkUp, please ensure:
- The device is powered on
- The status LED is blinking - if your status LED is not blinking, you may need to restart your device
- The screen of your mobile device is as close as possible to the BlinkUp sensor for the entire time the screen is blinking
- Your phone and device are as stationary as possible during BlinkUp

Android Phones
If you are configuring a device with an Android phone, ensure:
- Screen brightness is not set to Auto
- Screen brightness is at maximum
- If you have a Samsung phone, Power Saving is off

Wi-Fi Channel 12 or 13
If you are having trouble connecting, and are outside of the US, ensure your router is not set to channel 12 or 13.

The following guide should help you identify the LED status code patterns your card may blink:

No Wifi settings	amber	amber	off	off	amber	amber	off	off
BlinkUp successful	green	off	green	off	green	off	green	off
BlinkUp unsuccessful	red	off	red	off	red	off	red	off
WPS in Progress (press WPS button on router)	green	red	green	off	green	red	green	off
Searching for Wifi network	red	red	off	off	red	off	red	off	off
Joining Wifi network	red	red	off	off	red	off	red	off	red
Getting IP address	red	amber	off	off	red	amber	off	off
Resolving server name	amber	red	off	off	amber	red	off	off
Connecting to server	amber	amber	off	off	red	off	off
Connected to server	green	green	off	off	green	green	off	off
Attempting to reconnect	red	off	red	off	red	off	red	off
Downloading update	green	green	off	green	off
Installing update	green	green	green	green	green	green	green	green
Normal operation	off	off	off	off	off	off	off	off

- **Stuck at "No Wifi settings"?** The imp hasn't received any BlinkUp settings -- consult the advice above.
- **Stuck at "Searching for Wifi network"?** Check that your network name (SSID) is entered correctly. Note that the imp will only join 2.4GHz Wifi networks, not 5GHz ones.
- **Stuck at "Joining Wifi network"?** Check that your network password is entered correctly.
- **Stuck at "Getting IP address"?** Check the DHCP settings on your router. Also check that "MAC address filtering" isn't enabled, or isn't denying the imp access.
- **Stuck at "Resolving server name"?** Check the DNS settings on your router. Try disabling "DNS Relay"
- **Stuck at "Connecting to server"?** ◦Check the firewall settings on your router. (The imp needs to make a connection to port 31314.)
- **Connects to server (green flash), then flashes red, then repeats?** Contact Bluefish customer service.

One Year Limited Warranty

BlueFish™

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Quickstart Guide
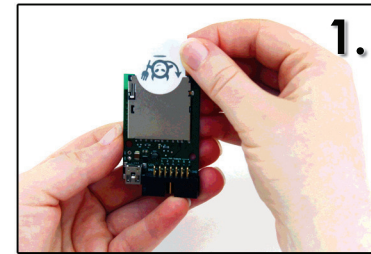
1. Gently insert wi-fi card into slot on top of device until card locks into place.

2. Download the app, and register as a new user. Follow instructions to configure Blinkup for your network.
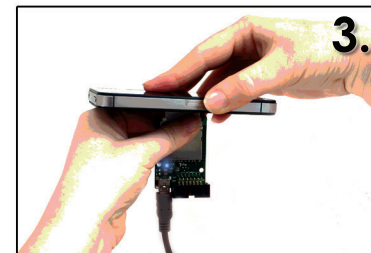
3. Power on the device, and start Blinkup. Hold screen to the top of the wi-fi card until screen stops flashing.

BlinkUp Tips:

The light on the wi-fi card must be flashing before starting blinkup. If it is not flashing, remove and reinsert card, then start Blinkup.

It is very important to block out as much ambient light as possible. Sheild the exposed areas of the card from light with your fingers, and cover the edge of the card completely with the screen of your device.

The flashing light patterns on the card reveal the cause of BlinkUp problems. If you have difficulty with BlinkUp, compare the light pattern to the BlinkUp Troubleshooting section of this guide.

Need help? support@aquarium-led-controller.com

Bluefish Mini LDD Controller: User Guide

For the most up-to-date version of this user guide, please visit aquarium-led-controller.com/support/

Installing the App
• Search for "Bluefish" in the iOS App Store on your iPhone or iPad, or Google Play for your Android device.
• Install the app

Connecting the App to the Controller (BlinkUp)
• Open the app, and tap "Register a New Device" at the login screen
• Enter the required fields to complete registration
• Select your WiFi network, and enter your network password (do not start BlinkUp yet)
• Gently insert the Imp card into the slot at the top of the Bluefish device so that it locks into place
• Connect the power supply to the Bluefish device (do not make connection to your lights yet)
• Cover the exposed faces of the card with your fingers to help block out ambient light, leaving the LED at the edge exposed
• Ensure the light at the edge of the Imp card is blinking, and tap "Start BlinkUp" in the app
• Cover the edge of the Imp card with your mobile device screen for the duration of the BlinkUp process (about 10 seconds). Your mobile device screen will flash rapidly during this process, as it it transmits data optically to your Bluefish device.
• Once BlinkUp is complete, your Bluefish device will be connected to your login, and accessible remotely with no additional configuration.
• Select an option from the Quick Setup menu to automatically apply settings for common light setups.
Note: If you are outside North America, your Wi-Fi network must be on channel 1-11. Your Wi-Fi network must have internet access.

Hardware Setup
• Disconnect all power before making connections.
• It is recommended to connect the Bluefish Mini to an LDD driver board with pull-down resistors.
• The Bluefish Mini can be powered with a mini-USB cable, or through the main header. NOT BOTH.
• Keep the Imp card clear of metal for best signal strength.

Ribbon Cable Pinout
Looking at the front of the board (Bluefish logo not showing), the ribbon cable pinout from left to right:

1: Ground
2: Power In 3.3-17V (optional)
3: Ground
4: Channel 1 PWM
5: Ground
6: Channel 2 PWM
7: Ground
8: Channel 3 PWM
9: Ground
10: Channel 4 PWM
11: Ground
12: Channel 5 PWM
13: Ground
14: Channel 6 PWM

Lighting: Channel Setup

Display Name: You can assign a custom name to each channel for easy reference. (eg. Blue, White, etc.) This name will be displayed throughout the app.

Display Color: Set a custom color to represent each channel within the app. This color is for reference only, and has no bearing on the actual light output.

Pendant Time Shift: You can add a time delay to individual channels. For example, if you had a 3 channel setup (left, middle, and right), you could set Pendant Time Shifts of 60 mins, 30 mins, and 0 mins respectively. This is useful for simulating the movement of the sun with pendant style setups. Paired with Natural Sun mode, this can create a very realistic effect. Test with Fast Forward in the scenes menu.

Minimum Dimming Level: This setting is used to limit the lowest level that a channel is able to output, other than zero. For example, to use a lighting channel to control fans, you might set minimum dimming to 100%. This will limit output to either 0%, or 100%, for on/off "digital" switching.

Lighting: Options

Morning Start Time: The time of day when your lights will begin to transition from Night Levels to Morning Levels

Morning Length: The length of time between Morning Start time and Midday

Morning Ramp Speed: The length of time it takes to transition from Night Levels to Morning Levels

Morning Levels: The light channel output/color for Morning during clear weather.

Midday Ramp Speed: The length of time it takes to transition from Morning light levels to Midday light levels

Midday Levels: The light channel output/color for Midday during clear weather. Midday Levels are also used throughout the day when Natural Sun is enabled (Morning and Evening Levels are ignored).

Evening Length: The length of time between Midday Levels, and Night Levels

Evening Ramp Speed: The length of time it takes to transition between Midday Levels to Evening Levels

Evening Levels: The light channel output/color for Evening during clear weather.

Night Start Time: The time of day when Night Levels will start

Night Ramp Speed: The length of time it takes to transition from Evening Levels to Night Levels.

Night Levels: The light channel output/color during full moon, and clear weather.

Note: To gain more accuracy from the slider, hold the slider over the approximate value you want. After five seconds, the slider will switch to a higher accuracy mode.

Natural Sun:
When enabled, a smooth dimming bell-curve will be applied using your Midday Levels, Morning Start Time, and Night Start Time. Morning and Evening Levels are ignored in this mode. ***Disabling Natural Sun provides more flexibility for color and intensity changes throughout your day.***

Clouds:
When enabled, current weather data is used from your Simulated Location to create cloud patterns by applying dimming to your light output. Partly cloudy, mostly cloudy, haze, overcast, and rain conditions all produce unique cloud patterns with varying density, speed, and dimming.

Storms:
When enabled, thunderstorms with lightning are simulated when your Simulated Location's current weather conditions match. Lightning color should be set under Special Settings, and Clouds should be enabled for proper effect.

Lunar Cycles:
When enabled, dimming will be applied to your Night Levels to match the moon illumination for your Simulated Location.

Sunrise/Sunset (Dynamic Photoperiod):
When either or both of these options are enabled, your photoperiod (day length) will match that of your simulated location. This changes daily, to simulate the natural variance of the day length throughout the year. You can use the Simulation screen to see how these options are being used.
• Option A: To have a variable sunrise time, but end at your Night Start Time, enable Sunrise only.
• Option B: To have a variable sunset time, but start at your Morning Start Time, enable Sunset only.
• Option C: To use the sunrise and sunset times from your Simulated Location directly, enable Sunrise and Sunset (not recommended).
• Option D: To only use your manual settings for sunrise/sunset, disable Sunrise and Sunset.
If you enjoy your tank mainly in the evening, we recommend option A. If you enjoy your tank mainly in the morning, we recommend option B.

Photography Mode:
Photography mode is a way to quickly apply pre-set light levels for taking photos. Adjust the levels in settings, and apply from the Scenes menu.

Scene Timer:
The Scene Timer prevents accidentally leaving your lights in Free Mode or other Scene. After the timer expires, the normal lighting schedule resumes.

For help or comments: please email us at:

support@aquarium-led-controller.com