

MINLEONS  
WIRELESS EFFECTS  
CONTROLLER  
(WEC)  
Take Control



# MINLEON WIRELESS EFFECTS CONTROLLER SYSTEM (WEC) INSTRUCTION MANUAL



**MINLEON LIGHTING**

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# PRECAUTIONS & INSTALLATION REQUIREMENTS

## IMPORTANT - READ BEFORE USE



1. Never disconnect and connect lights when the controller is powered up as this may cause permanent damage to the lights and/or controller.
2. Do not place lights or controller in areas where there is extreme heat or cold.
3. Do not strain the cables of the lights as damage may occur to the wiring.
4. Always keep the plug cap on at the end of the light string when not used.
5. Firmly tighten all plugs, do not over tighten
6. Do not drop controller or lighting on hard surfaces
7. Do not use if there is any damage to the controller, wiring or lighting
8. Do not wash down the controller with any fluids as this may cause permanent damage. Use a soft moist clean rag to clean the controller and lights.
9. When placing in gardens and trees the user must take into account tree growth and wind factors to ensure the lights string wire is not damaged. It is also important to periodically inspect to ensure there is no strain on the lights.
10. Always ensure that the correct approved type of power supply is connected (12 Volt DC) and ensure that the power supply is rated for the number of lights connected. The power supply must be able to supply about 30ma per attached light. So for 100 Minleon RGB LED lights (0.03 amps x 100 Minleon RGB lights) you would require a 5 amp 12VDC power supply (Minleon additional accessory)

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# 1 – INTRODUCTION

The wireless Effects Controller (WEC) is a small but very powerful digital light controller that is connected and controlled via a wireless device to allow the user to gain control of the lights. The controller is packed full of powerful features which allow for many ways to control the lights

## 1.1 – FEATURES

The wireless Effects Controller (WEC) has many powerful features which extend the capabilities

- Connect to any wireless device without the need to download an app
- Simple to connect using the same method used for wireless network devices
- Can connect up to 50 metres away ~
- Small, compact and powerful
- Controls up to 400 lights individually \*
- Over 20 individual built in effects
- Choose your colour of choice including shades of white
- Control effects direction, speed and intensity
- Select and save up to 3 colours to be use with 10 special built in effects
- Select and save up to 5 customised built in effects
- Remembers last effect when you turn off the controller if set with the on/off tab.
- Two flexible ways to connect up the controller, power and lights
- Wirelessly upload custom effects to the controllers internal memory
- Wirelessly upload updated controller firmware
- Use industry standard Art-Net to control the WEC for live wireless network control
- Use Minleon's Smart Ts for even more installation options
- Direct connect mode allows for direct wireless connection to the WEC
- Can be set up using a fixed (Static) IP address
- Network mode allows for connection through a wireless network
- Ability to easily reset to factory default
- Use any of the Minleon lighting range with the WEC controller
- Individually name each controller for easy management
- Powerful IOS and Android Apps available soon that will extend the controller capabilities even further including live music playback.

~ Wireless network distance can vary due to many factors including obstructions and type of wireless device used

\* An additional power-T and power supply must be connected to every 100 lights due to voltage drop.

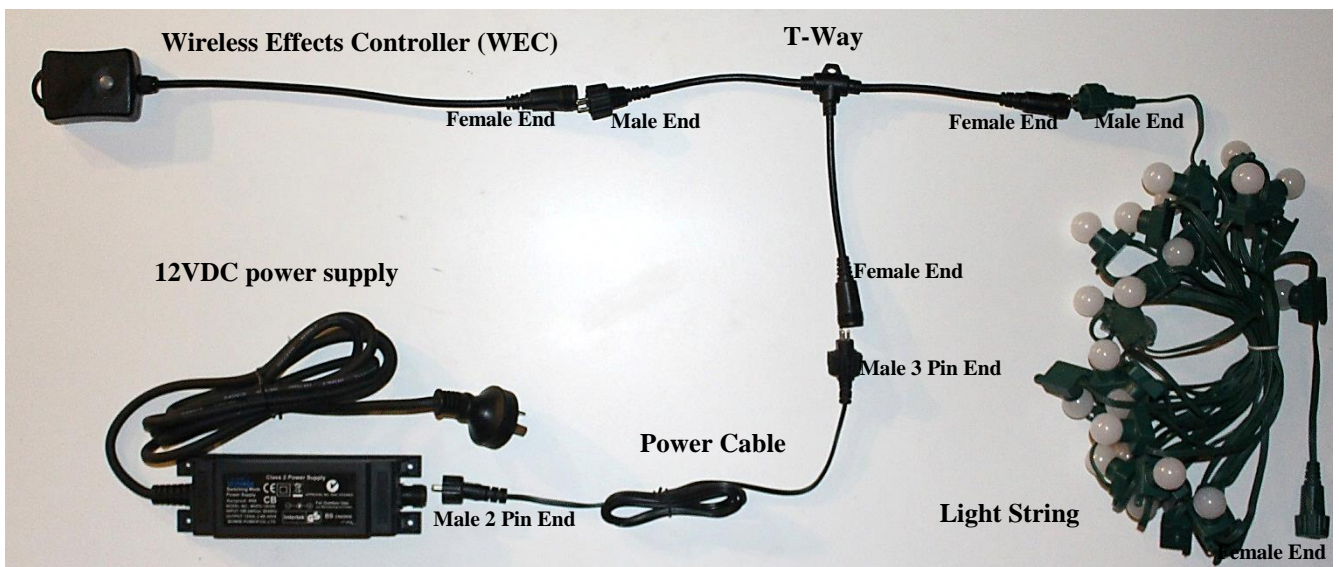


## 2 – CONNECTING UP THE CONTROLLER

The wireless Effects Controller (WEC) can be connected in two different ways. This section will go through the two connection methods to get the best from your controller and lighting system.

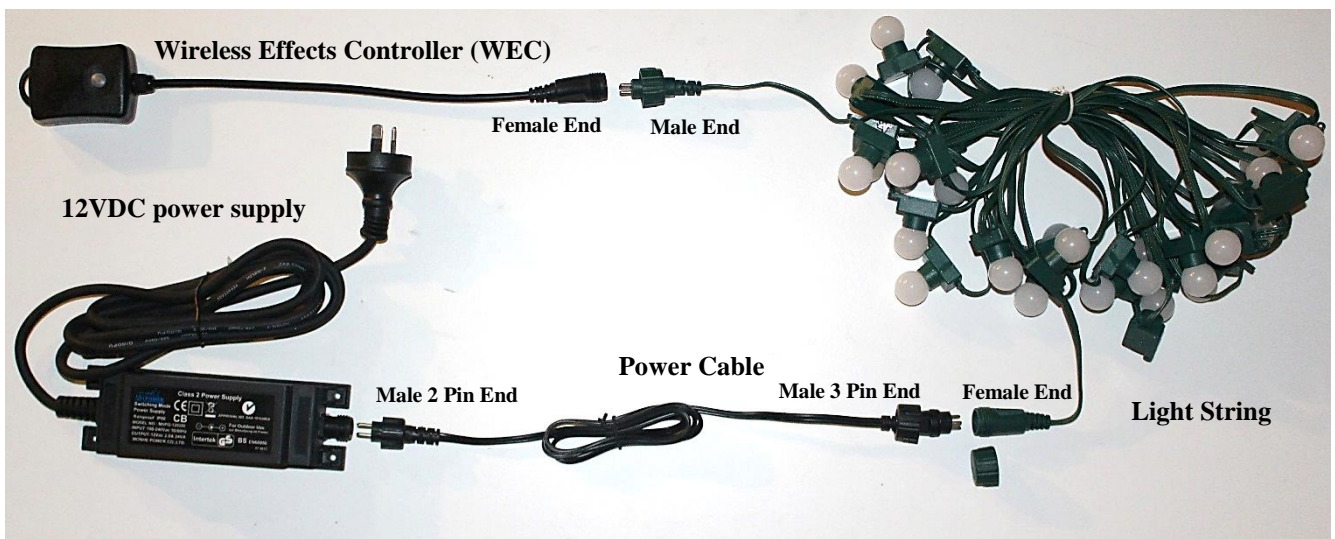
### 2.1 – Connecting using a T-Way

The wireless Effects Controller (WEC) can be connected using a T-Way which allows the power supply and the controller to be located at the beginning of the light string



### 2.2 – Connecting without a T-Way

The wireless Effects Controller (WEC) can be connected without a T-Way which allows the power supply to be connected at the end of the string with the controller connected at the beginning of the light string



## 3 – USING THE CONTROLLER

The Wireless effects controller can be controlled by any wireless portable device to allow the user to select effects, colours, save favourites, update the firmware and many other features as outlined in this manual. The controller can also be used with the single button which allows the user to select built in controller effects.



### 3.1 – CONNECTING TO THE CONTROLLER

Connecting to the wireless effects controller is a straight forward process and follows the same steps as if you were connecting to a home network.

**Step 1:** Open up your wireless network setting on your wireless device

**Step 2:** Search for available networks

**Step 3:** Select the Minleon-WEC device to connect to.

**Step 4:** Once connected then exit the Wireless settings and then open up your web browser

**Step 5:** Type in the URL web address IP number of **192.168.2.2** (This will be different if you have changed the IP address)

You will now be connected to the Wireless Effects Controller (WEC) and will be able to access the following interface windows





## 3.2 - COLORS SCREEN

### Colors

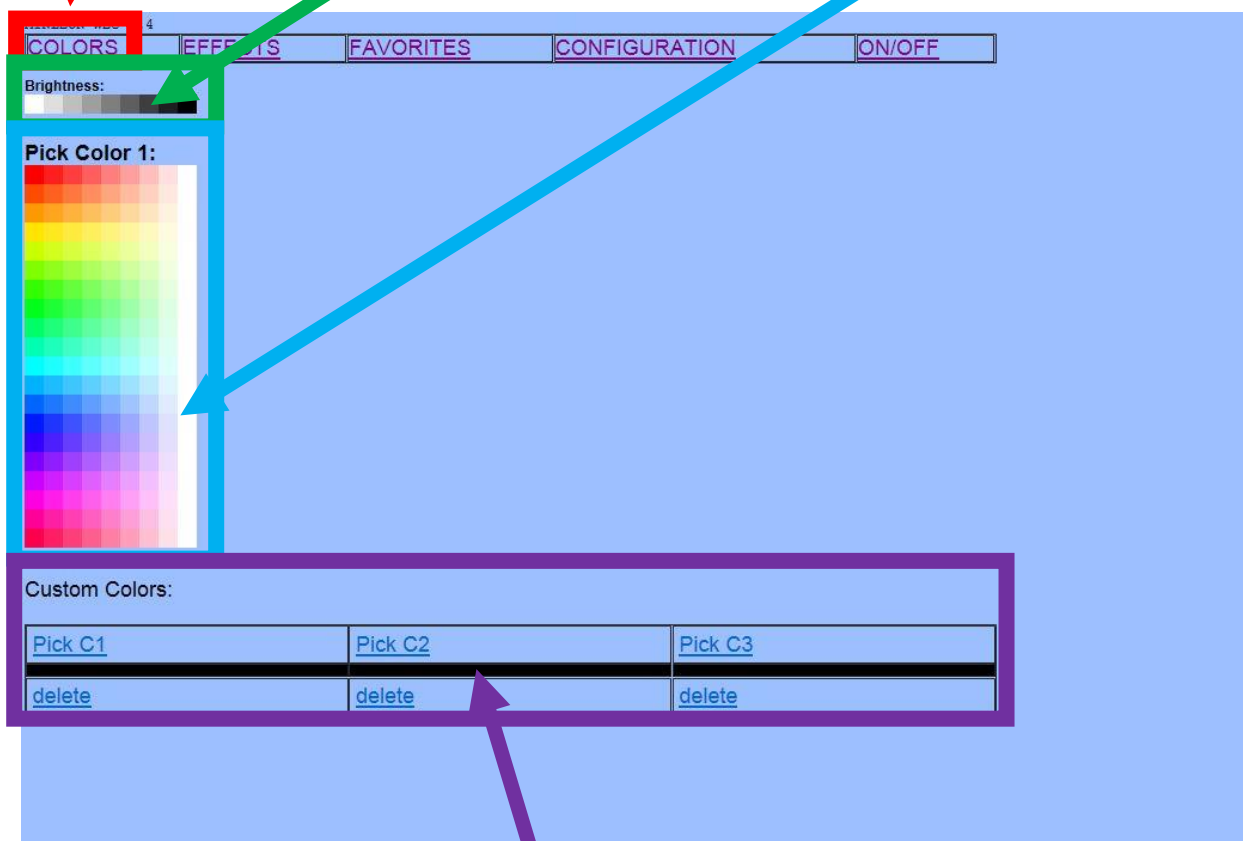
This screen allows for the user to select custom colours with the ability to choose up to 3 separate colours for use with certain effects.

### Brightness

Allows you to select a brightness level for the lights

### Colour Pallet

Allows for a selection of either a single colour or up to three colours when used with the custom colour picker



### Custom Colors

Pick up to 3 colours to be used with custom effects or for a static colour choice. For example if your favourite sports team colours are red, blue and green then you would select C1 with red, then C2 with blue and finally C3 with green. If you just wanted to use one or two colours then you would use the delete button for the appropriate colour to remove the selected colour.

## 3.3 – EFFECTS SCREEN

### Effects

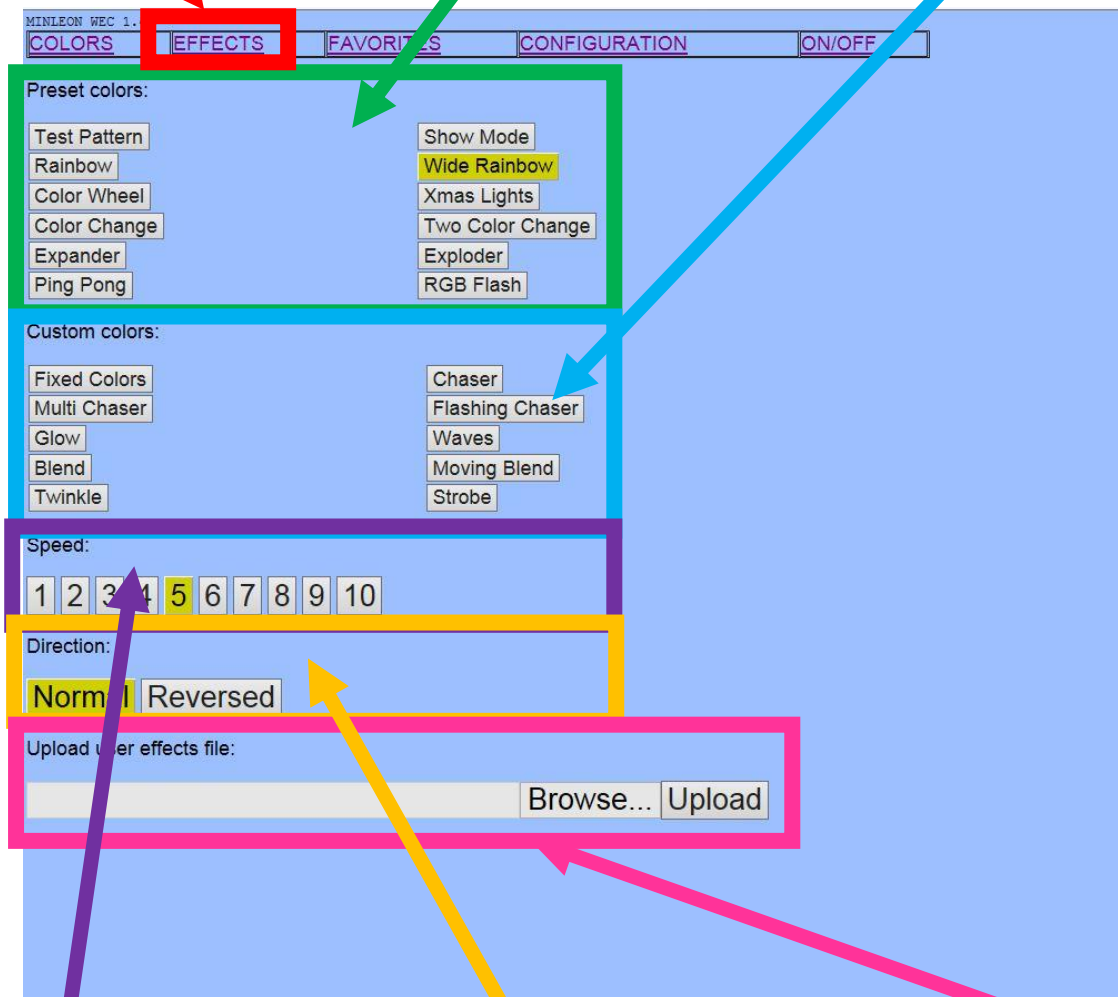
This screen allows the user to select the various controller effects and speeds, it also allows the ability for the user to upload custom effects

### Preset Colors

There are twelve pre-set colour effects which will use various random colours for their effects, the colours in these effects cannot be changed by the user

### Custom Colors

There are ten custom colour effects which will use the preselected colours that were chosen in the previous colors screen



### Speed

Allows the user to adjust the speed of the chosen effect. One being the slowest and ten being the fastest.

### Direction

This allows the user to select the direction of certain chase effects

### Upload Users Effects File

This allows the user to create customised effects using Minleon's LightShow Pro software and then be uploaded to the controller for playback

# 3.4 – FAVORITES SCREEN

## Favorites

This screen allows the user to save up to five favourite effects for quick and easy call back

## Effect Slot

There are up to 5 free slots that users can save their favourite effects to. The controller will save custom selected colours, intensity, speed and effect.

MINLEON WEC 1.4

COLORS		EFFECTS	FAVORITES	CONFIGURATION	ON/OFF		
Recall	Effect	Intensity	Speed	Color1	Color2	Color3	Set
Recall	Multi Chaser	100	7				Set
Recall	Fixed Colors	100	5				Set
Recall	Fixed Colors	50	5				Set
Recall	Glow	100	5				Set
Recall	Show Mode	100	7				Set

## Recall

Call up the desired saved effect

## Set

Saves the current chosen effects, colour, speed, and custom colours for easy recall

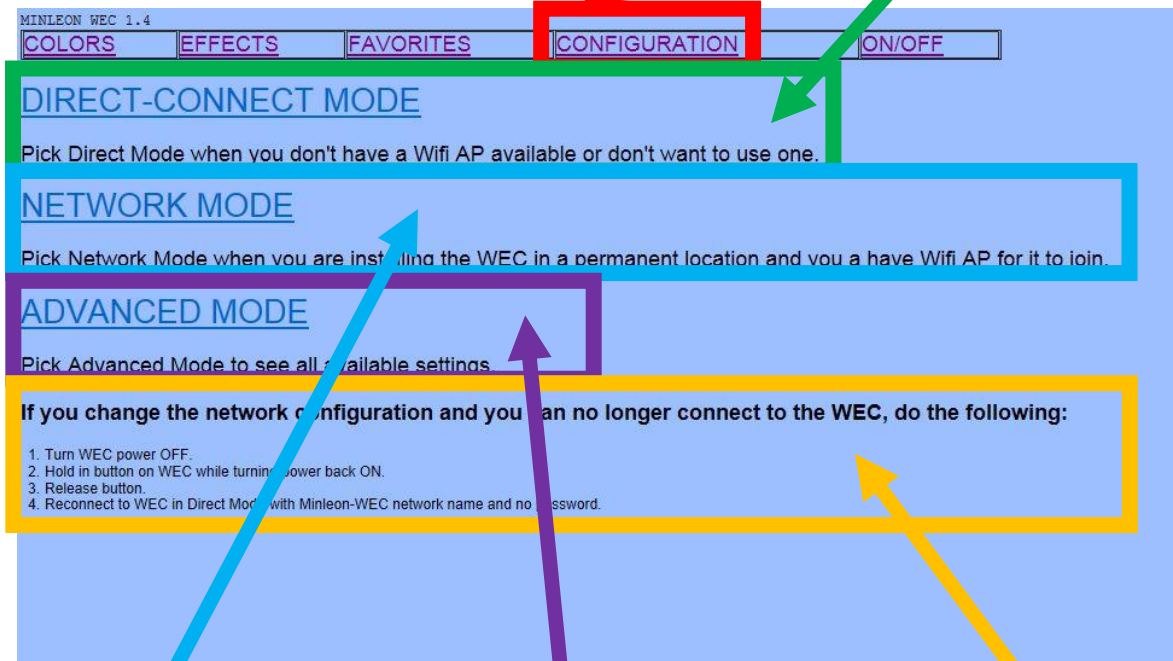
## 3.5 – CONFIGURATION SCREEN

### Configuration

This screen allows the user to select the different network configurations where the user can set up Ip addresses, passwords, number of lights connected and also update the controllers firmware

### Direct Connect Mode

This is the default mode and allows for direct wireless connection to the controller from a mobile wireless device. This connection does not require any network except the wireless access point that has been created by the WEC controller. You also set the number of lights connected here as well



### Network Mode

This mode allows for the connection of the WEC through a wireless router. It also allows for the number of lights connected to be set.

### Advanced Mode

This mode allows for static IP addressing and various network configuration settings including the uploading of new controller firmware

### Reset Instructions

If you have issue connecting back up to the controller than follow the instruction on the screen to reset the controller

## 3.5.1 – CONFIGURATION – DIRECT CONNECT



### Direct Connect Mode

This mode allows the user to connect directly to the WEC with any wireless device without the need for any available network.

### Name

This allows the user to create the unique name for the controller

### SSID

This allows the user to create the name of the wireless access point that will be seen when searching for wireless networks

MINLEON WEC 1.4

COLORS EFFECTS FAVORITES **CONFIGURATION** ON/OFF

**Direct-Connect (AP client) Mode**

Name:  pick a unique name for your device

SSID:  a wireless network name to use

Security: ☐ Open  
\*WEP Key:  password for wireless security (5 or 13 chars)

Lights:  total number of lights connected

### Save

Once you are happy with your setting you will then need to save

### Lights

This allows you to select the number of lights connected to the WEC to a total of 400 lights. Note a maximum of 100 lights connected before using a power-T and an additional power supply.

### Security

This allows the user to set password protection for the WECs wireless access point to stop any unauthorised access.



## 3.5.2 – CONFIGURATION – NETWORK MODE



### Network Mode

This screen allows the user to select the different network configurations where the user can set up Ip addresses, passwords, number of lights connected and also update the controller's firmware

### Name

This allows the user to create the unique name for the controller

### SSID

This is the name of the wireless network you are wanting the WEC to connect to

MINLEON WEC 1.4

COLORS EFFECTS FAVORITES CONFIGURATION ON/OFF

**Network Mode**

Name:  pick a unique name for your device

SSID:  the wireless network name to connect to

Security: ☒ Open  
☐ WEP ☐ WPA ☒ WPA2 Key:  password for wireless security

Lights:  total number of lights connected

### Save

Once you are happy with your setting you will then need to save

### Lights

This allows you to select the number of lights connected to the WEC to a total of 400 lights. Note a maximum of 100 lights connected before using a power-T and an additional power supply.

### Security

This is the security password and the security type for the wireless access point you are wanting to connect to.

## 3.5.3 – CONFIGURATION – ADVANCED MODE

### Advanced Mode

This screen allows the user to select the different network configurations where the user can set up IP addresses, passwords, number of lights connected and also update the controller's firmware

### Network Configuration

The user can set up a fixed (static) IP or use DHCP to set up the network connection through a wireless access point. Protocol sets the type of communication language used to talk to the wireless controller, either Minleon's DDP or industry standard Art-Net can be used

MINLEON WEC 1.4

**COLORS** **EFFECTS** **FAVORITES** **CONFIGURATION** **ON/OFF**

MAC: 00 1e c0 13 a8 da

Name:

Connection Mode: ☐ Direct (AP Server) ☒ Network (AP Client)

SSID:

Security: ☐ Open ☐ WEP40 ☐ WEP104 ☐ WPA ☐ WPA2

Key:

Use Addr: ☒ Fixed ☐ DHCP

IP:

NetMask:

Gateway:

Protocol: ☒ DDP ☐ ArtNet

Changes above this line will require a power-cycle or reboot.

ArtNet Universes:  through

Output	T's	Lights/String	Starting Slot
1	<input type="text" value="0"/>	<input type="text" value="37"/>	<input type="text" value="1"/>

Upgrade WEC software:    (press once and wait 30 seconds)

### Save/Reboot

Once you are happy with your setting then save the settings.  
**Reboot** to now load in the new settings

### Upgrade Firmware

This allows the user to easily and remotely update the controller firmware. In some instances it may revert the settings back to the default.

### Art-Net Universes

If using the Art-Net Protocol then you can choose the controllers appropriate universe range. You can also manage the output configuration and set the number of smart-Ts (Minleon accessory), lights per T connected and the starting channel for the controller.

## 3.6 – ON/OFF – STORING THE LAST EFFECT

MINLEON WEC 1.4

[COLORS](#)

[EFFECTS](#)

[FAVORITES](#)

[CONFIGURATION](#)

[ON/OFF](#)

### ON/OFF

The on/off tab will turn the lights on and off but it will also store the last effect into the controller's memory if the power to the controller is disconnected.

The last effect will play once the power has been restored

## 3.7 – SETTING THE NUMBER OF LIGHTS CONNECTED

The controller is capable of connecting up to 400 lights with individual control. When additional lights are connected to the controller then the user must set the correct number of lights connected to enable the additional lights to work. The controller also uses the light number for correct effect generation in some effects.

MINLEON WEC 1.4

[COLORS](#) [EFFECTS](#) [FAVORITES](#) [CONFIGURATION](#) [ON/OFF](#)

**Network Mode**

Name:  pick a unique name for your device

SSID:  the wireless network name to connect to

Security: ☐ Open ☐ WPA ☐ WPA2 ☐ WPA3 ☐ WPA3 Enterprise ☐ WPA3 Personal ☐ WPA3 Enterprise

Lights:  total number of lights connected

MINLEON WEC 1.4

[COLORS](#) [EFFECTS](#) [FAVORITES](#) [CONFIGURATION](#) [ON/OFF](#)

**Direct-Connect (AP client) Mode**

Name:  pick a unique name for your device

SSID:  a wireless network name to use

Security: ☐ Open ☐ WPA ☐ WPA2 ☐ WPA3 ☐ WPA3 Enterprise ☐ WPA3 Personal ☐ WPA3 Enterprise

Lights:  total number of lights connected

Under the configuration page you can apply the correct number of lights connected either in the Direct connect mode page or the network mode page. For the correct setting to take you must then save the configuration.

## 3.8 – RESETTING THE CONTROLLER

If you have issues with connecting to the controller after changes to the network configuration, then you can reset the controller back to direct connect mode.

To reset the controller, then hold down the single green effects button on the controller whilst powering up. This will then set the controller back to direct connect mode

## 3.9 – UPLOADING A CUSTOM EFFECT FILE

The Wireless Effects Controller (WEC) has the ability to upload custom made effects that have been created using Minleon's LightShow Pro programming software. This allows a level of light control that can be designed to suit any application.

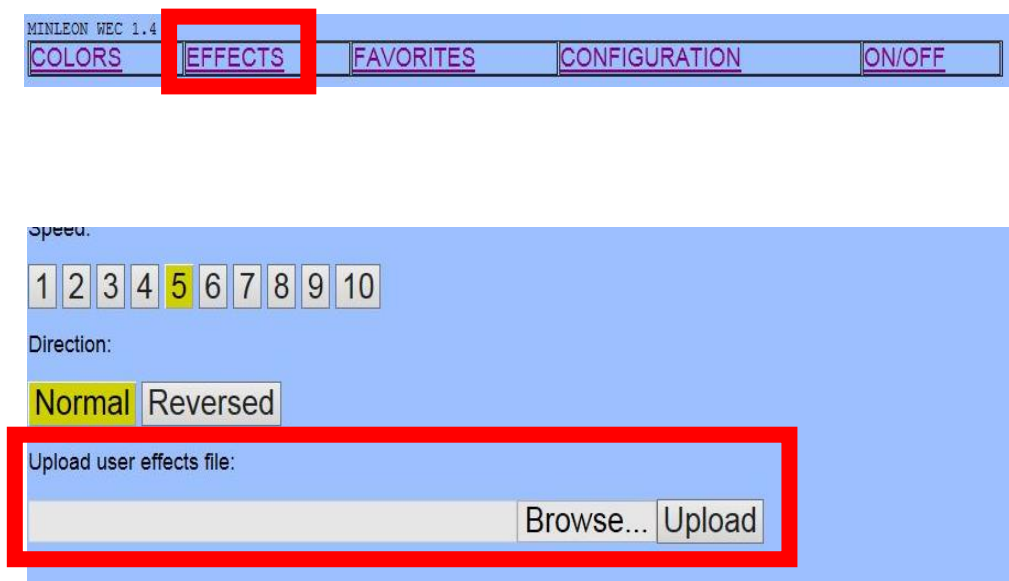
The following rules apply when creating and uploading an effects sequence to the Wireless Effects Controller (WEC)

**Maximum File Size:** 2,097,152 bytes -  $2097152 / 300 = 6990$  frames

**If displaying at 30 frames per second then:**  $6990/30 = 233$  seconds or 3:53 minutes

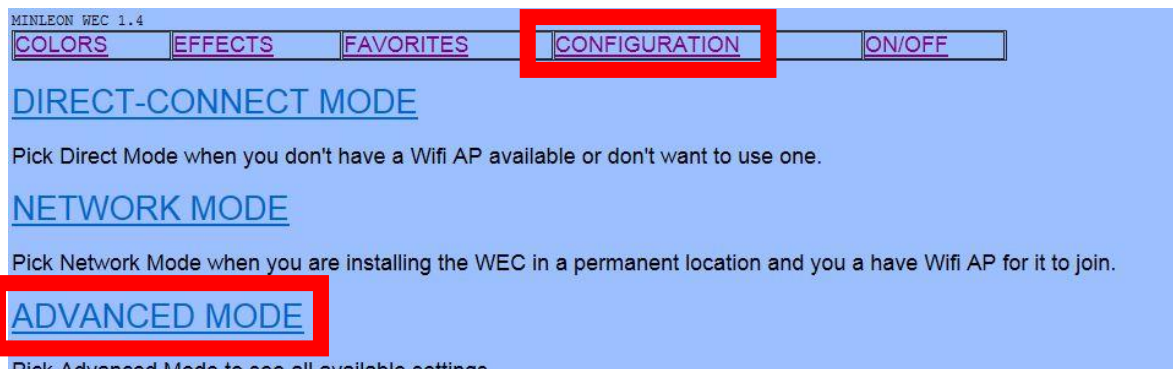
See section 8 for further information on creating a file to be used for uploading to the controller.

To upload an effects file to the controller, first browse for the appropriate .SEQ file and then press upload. It may take a little time depending on connection speed to upload the file. The controller should then start playing the uploaded file.



## 3.10 – USING ART-NET

The Wireless Effects Controller (WEC) can also be used with Art-Net for live control via software or a console and a wireless access point. To set up the Art-Net Configuration the user must go into the configuration screen and then select the advanced mode. Once the settings have been made then press save and then press reboot. The green illuminated button on the controller will flicker when receiving data over the network.



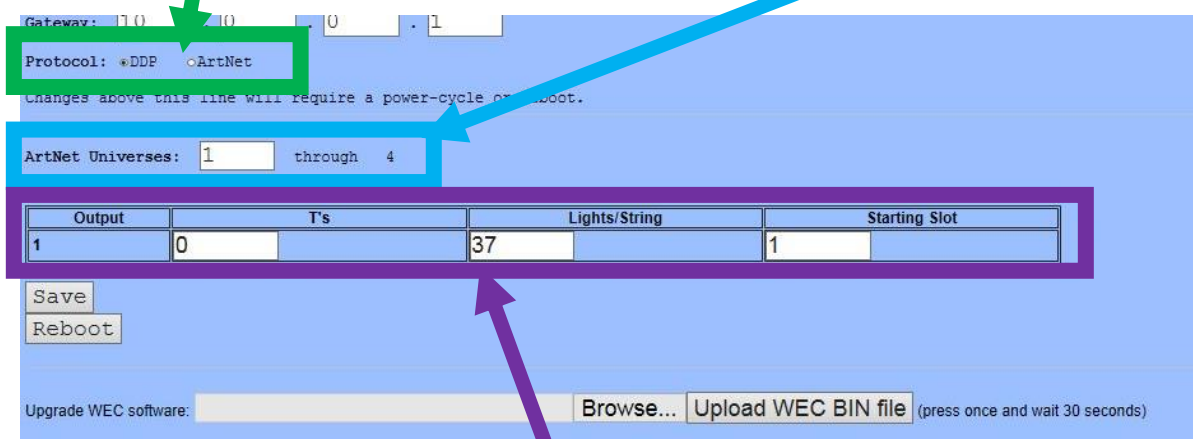
### Protocol

Select the Art-Net protocol to enable Art-Net communication.

Use DDP for Minleon Apps

### Universes

The WEC allows up to 4 universes of Art-Net. Select the correct universe number that will be used with this controller from your software.



### Output Configuration

This is where the user set up the controller's output configuration

**Output:** The WEC has 1 output

**T's:** Minleon Smart-Ts are unique to minleon and allow the user to create T's that are independently controlled for use in grids and light curtains

**Lights/Strings:** This is how many lights are connected to the WEC

**Starting Slot:** The start channel used in the Art-Net universe stream



## 3.11 – UPDATING THE CONTROLLERS FIRMWARE

Periodically updates will be available that will either add features or improve performance. First download the Bin file and press the browse button to locate the file on your computer. Then press the upload button and wait approximately 30 seconds for the new firmware to upload to the controller.

The screenshot shows the MINLEON WEC 1.4 web interface. At the top, there are four tabs: COLORS, EFFECTS, FAVORITES, and CONFIGURATION (which is highlighted with a red box). To the right of these tabs is an ON/OFF button. Below the tabs, there are three sections: DIRECT-CONNECT MODE, NETWORK MODE, and ADVANCED MODE (which is also highlighted with a red box). The ADVANCED MODE section contains a table for ArtNet Universes and a section for upgrading the WEC software.

MINLEON WEC 1.4

COLORS EFFECTS FAVORITES **CONFIGURATION** ON/OFF

DIRECT-CONNECT MODE

Pick Direct Mode when you don't have a Wifi AP available or don't want to use one.

NETWORK MODE

Pick Network Mode when you are installing the WEC in a permanent location and you have a Wifi AP for it to join.

**ADVANCED MODE**

Pick Advanced Mode to see all available settings.

Gateway: 10 . 0 . 0 . 1

Protocol: ☒DDP ☐ArtNet

Changes above this line will require a power-cycle or reboot.

ArtNet Universes: 1 through 4

Output	T's	Lights/String	Starting Slot
1	0	37	1

Save

Reboot

Upgrade WEC software:  Browse... Upload WEC BIN file (press once and wait 30 seconds)

### Important Note:

It is important you do not turn the controller off or disconnect power to the controller when you are uploading a new firmware file. It is also important that you have a good wireless network connection with the controller.

## 4. Connecting Lights

The Minleon Multifunction Mini Controller can connect and control up to 500 Minleon RGB lights or thousands of lights if grouped together using additional Minleon accessories. Minleon RGB lights have a female plug at the end so additional RGB lights can be connected. These can be any type of compatible Minleon RGB lights, for example you could have a string of C9 RGB lights and then connect a string of C7 RGB lights to have two different types of lights connected to the one Multifunction Mini Controller.



**Always disconnect power before adding or removing lights**

### 4.1 Power Considerations

The Minleon Multifunction Mini Controller will allow up to 125 Minleon RGB lights to be connected and controlled using the Minleon 5 amp power supply. The controller is shipped with a 2 amp power supply that can run a load of approximately 50 Minleon RGB lights.

When adding additional Minleon RGB lights then the power supply load must be taken into consideration.

**For every additional Minleon RGB light added then 0.03 amps of load must be added**

You can buy additional power supplies and power injectors from local your Minleon Distributor in a range of sizes (refer to accessories section for available types)

#### 4.1.1 Methods of Connecting Additional Power

There are 2 main ways to add additional power to control additional Minleon RGB Lights.

1. Replace the current power supply with a larger power supply (maximum 5 amps)
2. Add additional power supplies using the power injector lead.(refer to accessories section)

**Note:** It is important that the Minleon Power T and power cable is used for supplying power.

The +12VDC must never be connected between different power supplies.

## 4.2 How to Connect Additional Minleon RGB Lights

Each string of Minleon RGB Lights has both a male and a female plug, the male is the input side and the female is the output side. To connect, remove the weatherproof plug from the female plug at the end of the string and then connect the male input plug for the second string to the female plug of the first string. Ensure that the plug is firmly tightened but not over tightened.



### 4.2.1 Connecting Lights Using the One Power Supply

If the power supply connected to the Minleon Multifunction Mini Controller is capable of supplying the power to all the lights connected then it is just a matter of connecting the two Minleon RGB lights together and then setting the correct channel number in the controller.



### 4.2.2 Connecting Lights Using Additional Power Supplies

Additional Minleon RGB lights can be connected using the additional Minleon accessory. This is achieved by using the Minleon Power-T Injector cable and a suitable rated Minleon power supply. Connect the Power-T Injector cable between the two strings and then connect the power supply to the adaptor.



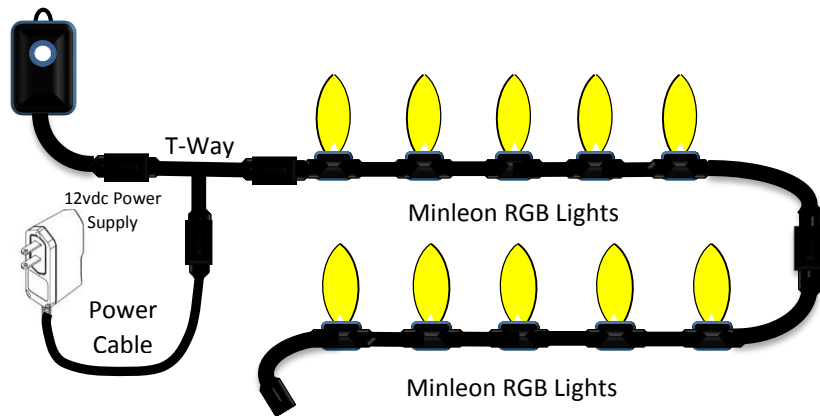
## 4.3 Connection Options

The below section gives some basic layout examples of how lighting can be connected and controlled from a Minleon Wireless Effects Controller (WEC). Any of the Minleon RGB Light range can be used including, RGB light strings, Triklits, Strip and RGB Tubes. This allows for a level of installation flexibility that can suit nearly any requirements.



### 4.3.1 Single String

A single string connected to the controller with lights supplied by the 12 Volt DC power supply using the T-Way and power cable

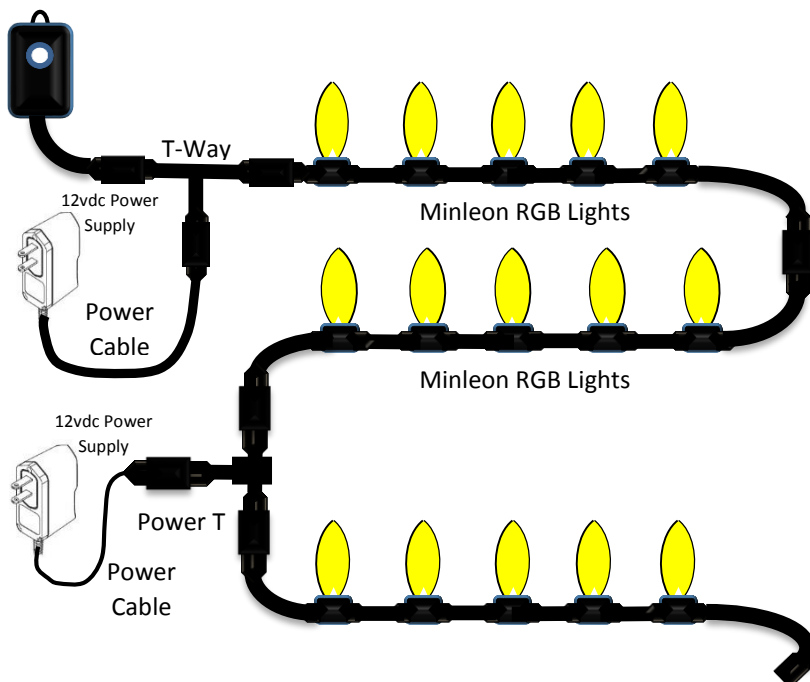


### 4.3.2 Multiple Strings

Multiple strings can be connected to the controller as each light string is connectable\*

*\*Maximum of 50 lights (2 x 25 light strings) connected to a 2 amp power supply*

*\*Maximum of 100 lights (4 x 25 light strings) connected to a 5 amp power supply*



### 4.3.3 Multiple Strings & Power

Adding additional strings using additional power supplies and power Ts. This will allow up to 400 Minleon RGB lights (16 x 25 light strings) to be connected using the Minleon additional power supply with a Power T ~

*~ Maximum of 50 lights (2 x 25 light strings) connected to a 2 amp power supply*

*~ Maximum of 100 lights (4 x 25 light strings) connected to a 5 amp power supply*

### 4.3.4 Connecting using the Optional T-Way or Smart -T

Thousands of lights can be connected and controlled from a single Minleon Wireless Effects Controller (WEC) using the Minleon T-Way and additional Power supply with a Power-T

Each string on each T-Way will mimic each other so all strings connected will do the same thing. This is useful for using the Wireless Effects Controller (WEC) over larger areas. #

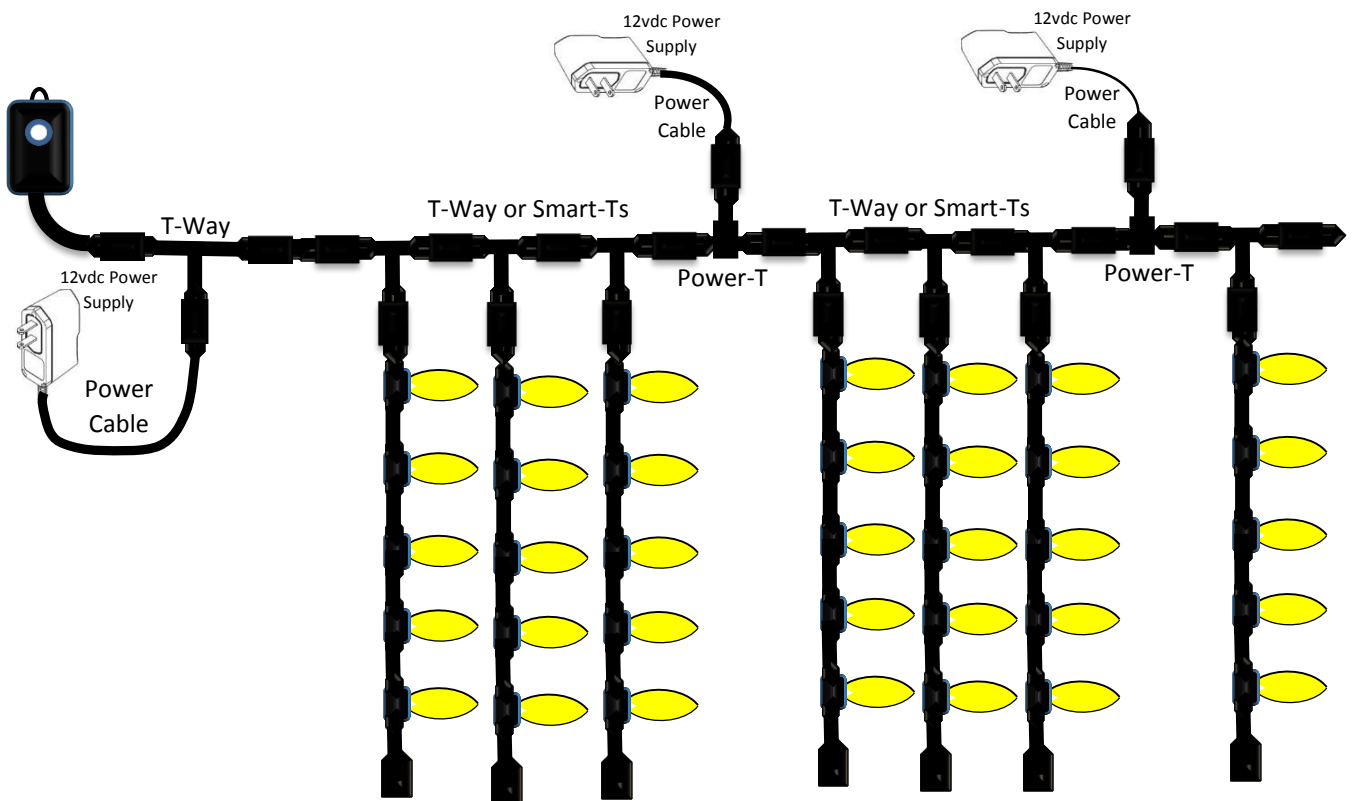
The Smart-T allows for each T to act independently of the other allowing for one supply cable to control multiple independent drops #

# Maximum of 400 lights connected per T-Way\*

# Maximum of 400 total lights connected using Smart-Ts\*

\*Maximum of 50 lights (2 x 25 light strings) connected to a 2 amp power supply

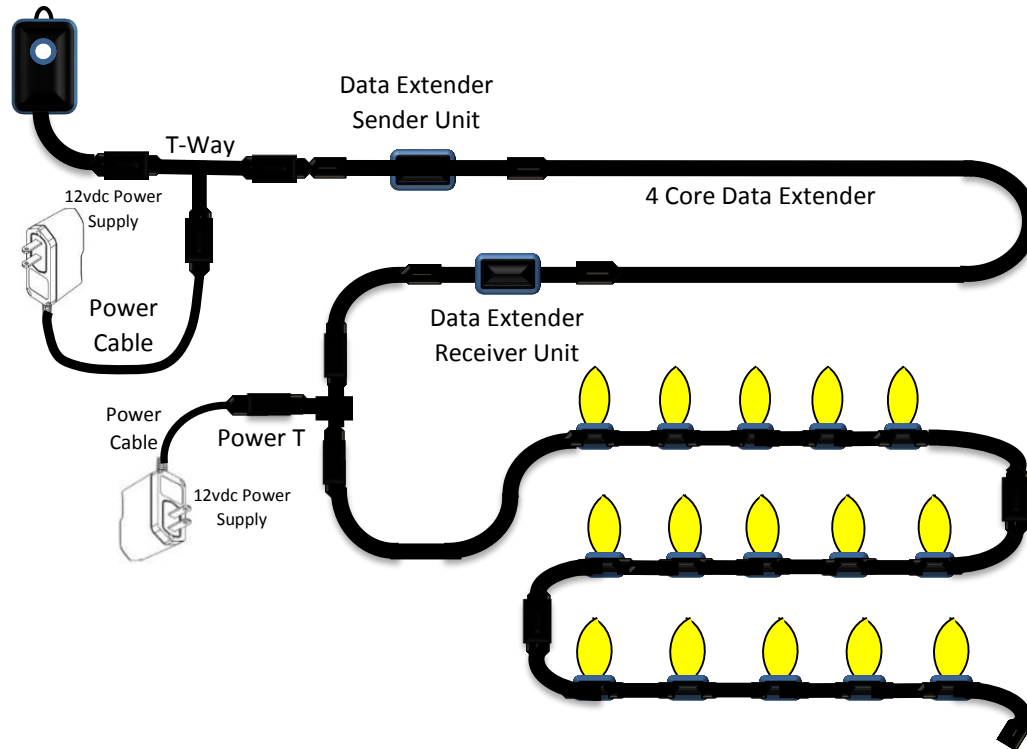
\*Maximum of 100 lights (4 x 25 light strings) connected to a 5 amp power supply





### 4.3.5 Strings Connected through the Data Extender

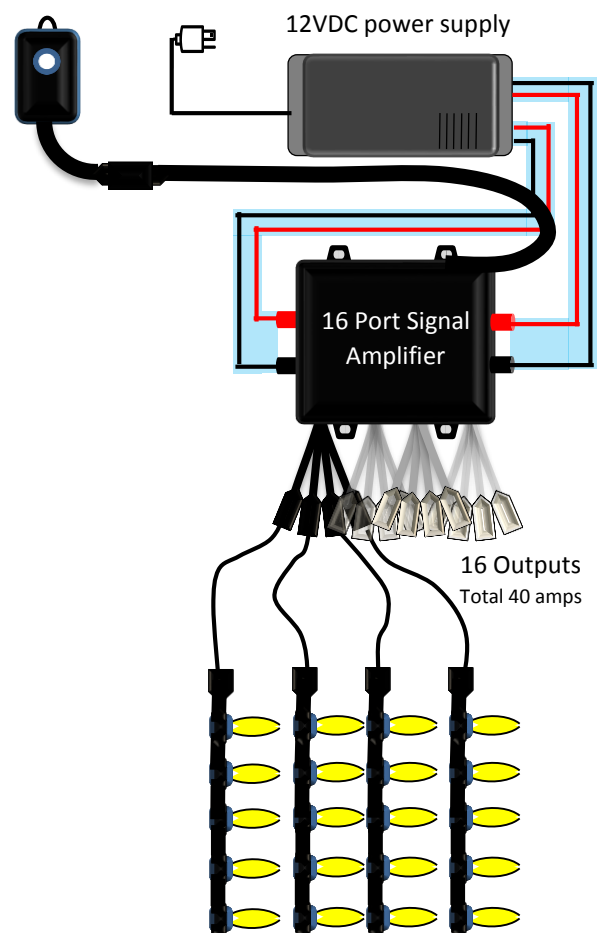
Lights can be connected up to 100 metres away from the Wireless Effects Controller (WEC) using the optional Minleon Data Extender, Minleon Power Supply and Power-T



### 4.3.6 Strings Connected through the 16 Port Signal Amplifier

The Minleon Wireless Effects Controller (WEC) can be connected to the optional Minleon 16 Port Signal Amplifier to extend the amount of lights connected to a total of 16 strings with a total current draw of 40 Amps which is approximately 16 strings of 75 Minleon RGB lights.

The effects on each string will be identical and mimic each other.



# 5. MINLEON ACCESSORIES

Minleon have a number of accessories to allow various installation options which increases the flexibility of the Minleon Wireless Effects Controller (WEC) and Lights.



## 5.1 Extension Cables

A range of extension cables for either extending the distance from the controller to the first light or for linking lights together.

<b>RGBS01</b>	<b>30cm (1foot) 3 core cable extension</b>
<b>RGBS02</b>	<b>60cm (2foot) 3 core cable extension</b>
<b>RGBS03</b>	<b>1.5metres (5foot) 3 core cable extension</b>
<b>RGBS04</b>	<b>3metres (10foot) 3 core cable extension</b>
<b>RGBS05</b>	<b>6metres (20foot) 3 core cable extension</b>
<b>RGBS06</b>	<b>7.5metres (25foot) 3 core cable extension</b>



## 5.2 Power Supplies

Both 2 Amp and 5 Amp IP67 power supplies available.

Larger power supplies available for use with the 16 port Signal amplifier

<b>RGB2A</b>	<b>12 VDC Power Supply IP67 – 2 Amps</b>
<b>RGB5A</b>	<b>12 VDC Power Supply IP67 – 5 Amps</b>



## 5.3 Power-T Injector

Used for adding power between Minleon RGB Lights to allow additional lights to be connected

<b>RGBTW05</b>	<b>30cm (12 Inch) Power T – 3 Core</b>
<b>RGBTW06</b>	<b>60cm (24 Inch) Power T – 3 Core</b>



## 5.4 Smart Extenders

The Smart Extender can be used to extend the range of data to over 300 feet from the controller to the first light or extend the range

between different light strings. The smart Extender sender unit changes the data so it can be transferred over a greater distance. The Smart Extender Receiver then converts this data back for use with Minleon RGB Lights.

<b>RGBA01</b>	<b>Signal sender/receiver card (per set)</b>
<b>RGBA02</b>	<b>7.5 metres (25ft) 4 core Spacer/Extension</b>
<b>RGBA03</b>	<b>15 metres (50ft) 4 core Spacer/Extension</b>
<b>RGBA04</b>	<b>25 metres (83ft) 4 core Spacer/Extension</b>
<b>RGBA05</b>	<b>50 metres (164ft) 4 core Spacer/Extension</b>
<b>RGBA06</b>	<b>100 metres (328ft) 4 core Spacer/Extension</b>



*Due to voltage drop over long distances it is recommended to use a Power-T Injector Adaptor after the receiver unit so that enough voltage can be supplied to the Minleon RGB lights*



## 5.5 16 Port Signal Amplifier

The Minleon 16 Port Signal Amplifier allows you to extend the number of lights connected the Wireless Effects Controller (WEC). This can allow up to 40 amps of lighting which is approximately equivalent to 16 strings of 75 Minleon RGB lights from the one 40 amp power supply.

Each string will mimic each other and a total of 125 lights can be connected to each output

<b>RGBSA</b>	<b>16 Port Signal Amplifier</b>
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## 5.6 T-Ways



This can extend the possibilities even further with the NDB Controller. The T-Way allows addition Minleon RGB lights to be connected in parallel. For example you can have 10 Strings of Minleon RGB lights each connected through a T-Way, each string will then mimic each other. This allows for thousands of lights to be connected to a

single Minleon NDB. This can be a big advantage for covering large areas with one controller. Of course power considerations need to be taken into account.

<b>RGBTW01</b>	<b>30cm (12inch) T-Way – 3 Core</b>
<b>RGBTW02</b>	<b>60cm (24inch) T-Way – 3 Core</b>



## 5.7 Smart-T's

The Smart-T's is unique to Minleon, They allow for lights to be connected in a similar way as a T-Way, but instead The Smart-T acts as individually controlled T's so all lights are individually controlled instead of with the T-Way where all T's act as the same.

<b>RGBTW03</b>	<b>30cm (12 Inch) Smart T – 3 Core</b>
<b>RGBTW04</b>	<b>60cm (24 Inch) Smart T – 3 Core</b>

## 6. FAULT DIAGNOSIS

Many faults can be easily diagnosed by following the appropriate instructions in the table below.

1	No Lights are Working	<ul style="list-style-type: none"><li>• Check that the 12VDC power supply is connected to the controller and that the power supply is plugged into the power outlet and turned on.</li><li>• Wait 30 seconds as the controller may be making a wireless network connection</li><li>• Make sure that the lights have been turned on or the light intensity is not set at zero using the control interface via a wireless device.</li><li>• Disconnect power and then check to ensure the lights are connected correctly and all plugs are secure. Then reconnect power and check.</li><li>• Check that there is no damage to the light or power wiring.</li></ul>
2	Not all the Lights are Working	<ul style="list-style-type: none"><li>• Check that the controller has been set up for the correct number of lights connected.</li><li>• Make sure that you have disconnected power before connecting lights to the controller</li><li>• Ensure that if you have connected additional strings that the power supply is capable of handling the load</li><li>• Check that there is no damage to the light wiring.</li><li>• Select a different controller effect.</li></ul>
3	Controller will not connect to a wireless device	<ul style="list-style-type: none"><li>• In direct connect mode (default mode) make sure that you are connected to the wireless effects controllers wireless access point.</li><li>• Ensure you are within range of the controller. The distance can vary depending on obstructions and device used.</li><li>• When inputting the IP connection number into your web browser make sure you are using the correct IP number (Default IP 192.168.2.2) to connect. This may be different if you have changed this.</li><li>• Disconnect power and hold down the button whilst reconnecting power. This will reset the controller to direct connect mode.</li><li>• If connected in Network mode then ensure that you are connected to the correct wireless access point and that it is turned on</li></ul>
4	Controller will not start back up with my chosen effect after power has been restored	<ul style="list-style-type: none"><li>• To save the last effect to memory for start-up after power has been restored then press the on/off button twice using the controllers interface on your wireless device.</li></ul>



## 7. SPECIFICATIONS

<b>Name</b>	Minleon Wireless Effects Controller (WEC)
<b>Maximum Number of Lights</b>	400 individual controlled lights (16 x 25 light strings)
<b>Supply Voltage</b>	12 Volts DC
<b>Dimming Steps</b>	12 Bit per color, 4096 dimming steps per color <sup>(1)</sup>
<b>Operating Environment</b>	Controller – IP65 Lights – IP 67
<b>Operating Temperature</b>	-20 Deg C to +60 Deg C
<b>Power Adaptor</b>	100 – 240VAC input 12Vdc 2 amps output – IP67 100 – 240VAC input 12Vdc 5 amps output – IP67
<b>Wireless Network</b>	802.11b/g
<b>Power when lights off</b>	50 mA
<b>Controller Dimensions</b>	76mm L x 63.5mm W x 25.5mm H

## 8. Preparing Custom Effects for Uploading

This section describes the basic method for preparing a sequence file created using Minleon's LightShow Pro ready for uploading to the Minleon Wireless Effects controller (WEC)

### 8.1 Using Minleon's LightShow Pro Sequencing Software

**A: Open up the Minleon LightShow Pro application.**

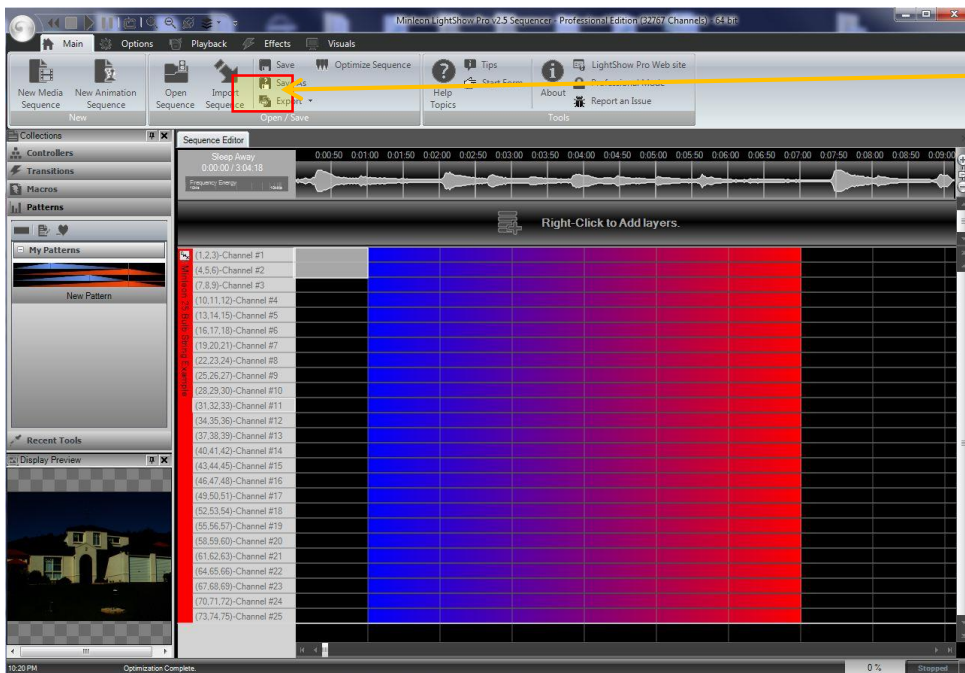
If you do not already have a copy of Minleon's LightShow Pro then you can download the demo of the software or purchase different versions from [www.lightshowpro.com](http://www.lightshowpro.com)

**B: Create your sequence using Minleon's LightShow Pro**

General instructions on installing and using LightShow Pro to create sequences can be found at [http://www.lightshowpro.com/help/webHelpV25/lightshow\\_pro.htm](http://www.lightshowpro.com/help/webHelpV25/lightshow_pro.htm)

**C: Export and save your sequence file on your computer ready for uploading to the controller**

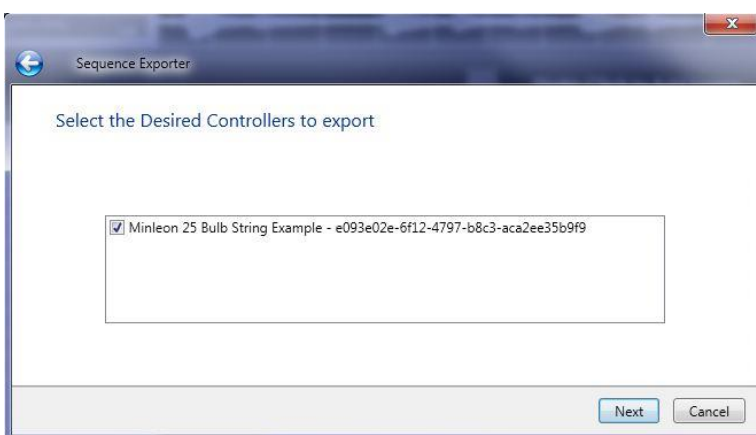
## 8.2 Steps to export a file ready for Uploading



**Step 1:** Use Minleon's LightShow Pro to create your own effects

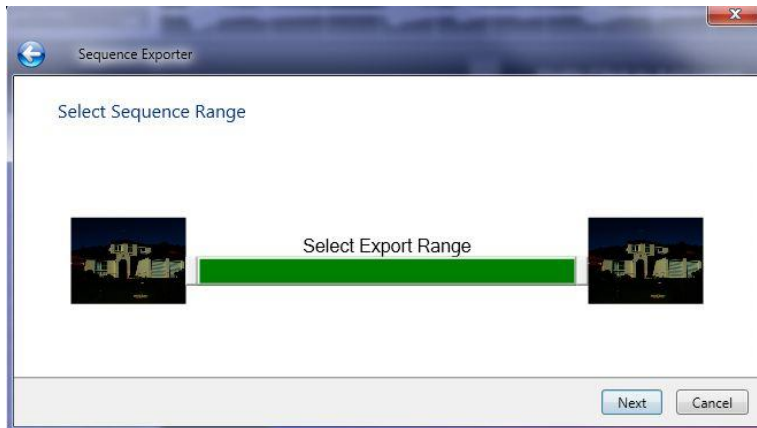


**Step 2:** The LightShow Pro Minleon Effects Export Wizard is started.



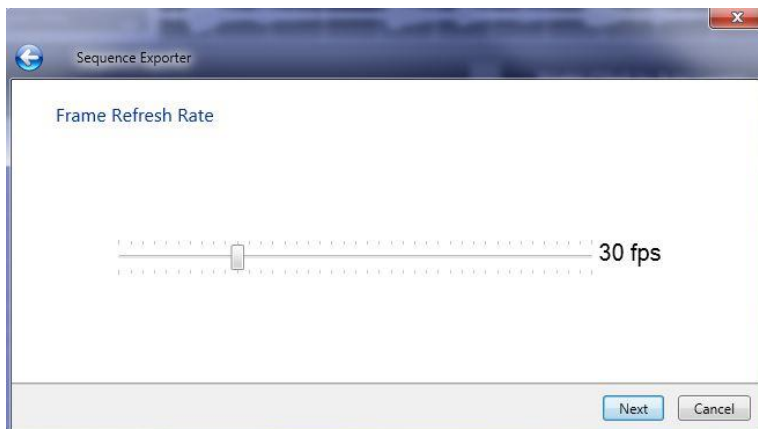
**Step 3:** Select the desired controllers or elements to export to the SD card.

Generally you would pick all the controllers/elements that you created for use with the Effects Controller.



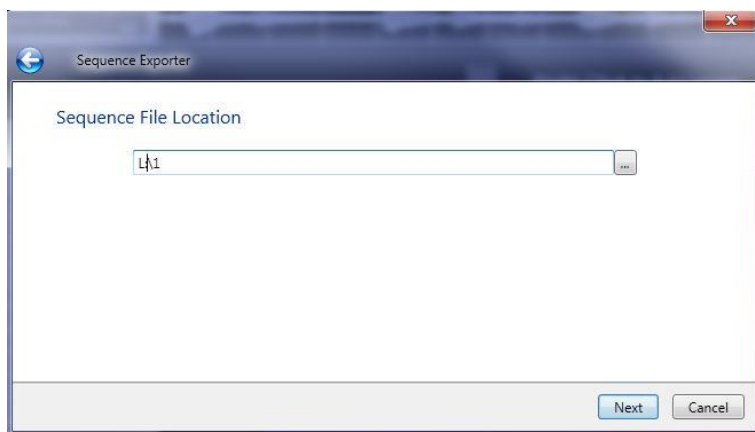
**Step 4:** Select the range of the sequence that you want to export.

Generally this would be the whole range of the sequence

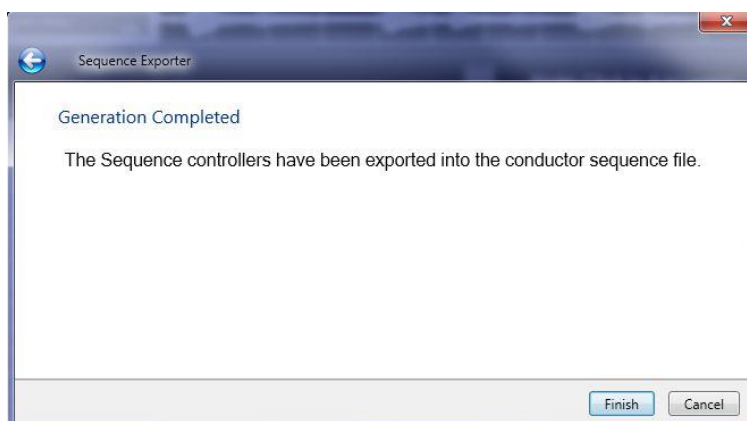


**Step 5:** Select the frame refresh rate for use in the effects controller

Generally this is left at 30 frames per second, any higher will not yield noticeable results, lower frame rates will enable longer sequences to be saved



**Step 6:** Save the sequence file to your computer.



The sequence file is now saved ready to be uploaded to the Wireless effects controller

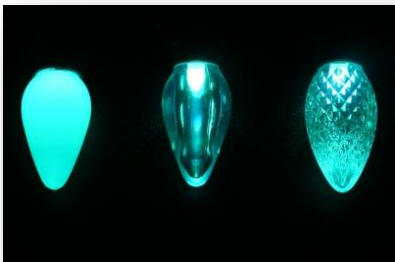
# 9. MINLEON RGB LIGHTS

Minleon also have a range of fantastic RGB lights that will work with the Minleon Wireless Effects Controller (WEC) to allow you to mix and match for any occasion or area.

## 9.1 RGB String Light Series

Minleon RGB lights come in a wide variety of types that can be mixed and matched. All Minleon RGB lights are 36bit RGB colour\* (12 bit per colour) and are available as standard with 300mm spacing 25 to a string in green, black and white string colour. Each string is also inter-connectable with each other and other Minleon RGB lights.

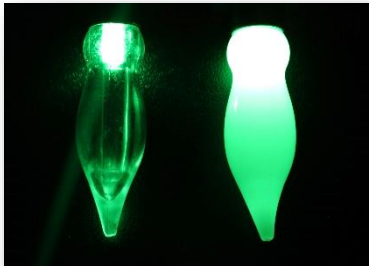
Note: Not all bulb types and variations are stocked. Please enquire



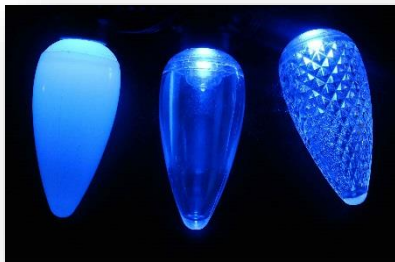
C7 – Opaque, Clear, Faceted



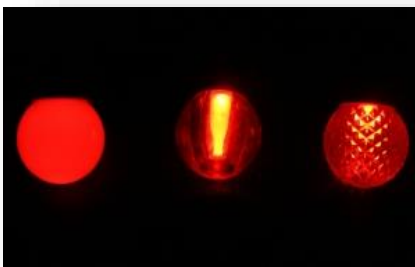
M10 – Clear, Opaque



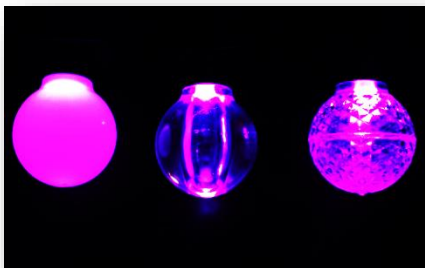
F7 – Clear, Opaque



C9 – Opaque, Clear, Faceted



G20 – Opaque, Clear, Faceted



G30 – Opaque, Clear, Faceted



G40 – Opaque, Faceted



G50 – Faceted

<b>RGBC7F</b>	<b>C7 Faceted</b>
<b>RGBC7O</b>	<b>C7 Opaque (Frosted)</b>
<b>RGBC7C</b>	<b>C7 Clear</b>
<b>RGBC9F</b>	<b>C9 Faceted</b>
<b>RGBC9O</b>	<b>C9 Opaque (Frosted)</b>
<b>RGBC9C</b>	<b>C9 Clear</b>
<b>RGBG20F</b>	<b>G20 Faceted</b>
<b>RGBG20O</b>	<b>G20 Opaque (Frosted)</b>
<b>RGBG20C</b>	<b>G20 Clear</b>
<b>RGBG30F</b>	<b>G30 Faceted</b>
<b>RGBG30C</b>	<b>G30 Clear</b>
<b>RGBG30O</b>	<b>G30 Opaque (Frosted)</b>
<b>RGBG40F</b>	<b>G40 Faceted</b>
<b>RGBG40O</b>	<b>G40 Opaque (Frosted)</b>
<b>RGBG50F</b>	<b>G50 Faceted</b>
<b>RGBM10O</b>	<b>M10 Opaque (Frosted)</b>
<b>RGBM10C</b>	<b>M10 Clear</b>
<b>RGBF7OC</b>	<b>F7 Clear</b>
<b>RGBF7OO</b>	<b>F7 Opaque (Frosted)</b>



Double Sided RGB  
Snow Tubes

## 9.2 Double Sided RGB Snow Tubes

The Minleon double sided snow tubes are perfect for hanging from trees, shrubs, eaves, or anywhere else that you want a high impact colourful strip light RGB snow tube effect, also fantastic for using as a hanging RGB chandelier. These come in a variety of lengths. Available in clear or frosted.

<b>RGBLT81C</b>	<b>T8 Tube – 30cm (1ft) length - Clear</b>
<b>RGBLT81F</b>	<b>T8 Tube – 30cm (1ft) length - Frosted</b>
<b>RGBLT82C</b>	<b>T8 Tube – 60cm (2ft) length - Clear</b>
<b>RGBLT82F</b>	<b>T8 Tube – 60cm (2ft) length - Frosted</b>
<b>RGBLT83C</b>	<b>T8 Tube – 90cm (3ft) length - Clear</b>
<b>RGBLT83F</b>	<b>T8 Tube – 90cm (3ft) length - Frosted</b>

Larger sizes available on request



TrikLits

## 9.3 Triklits G40 Frosted 360° Bulb

The Minleon Triklits are a 360° G40 Frosted RGB globe that allows many possibilities, these can be hung from just about anything to create an amazing effect.

**RGBTriK**

**G40 Frosted [triklits]**



Digital Strip

## 9.4 RGB Light Strip – Flexi Tape

The Minleon RGB Flexi Tape is a 2 LED per section digital colour changing strip that can create stunning effects and outlines using any of the Minleon controllers, The strip is encapsulated in Silicone based UV protected coating to a level of IP67.

Note: Strip is designed to be mounted to a solid backing

<b>P/N</b>	<b>Description</b>
<b>RGBFT21C</b>	<b>Flexi-Tape 1 IC to 2 LED (per metre cost)</b> 28 LEDs with 14 controllable sections per metre

\* Note: Each 5 metre strip will require a power T injector (RGBTW05) and power supply (RGB5A) if connected together

# NOTES



## **Minleon Australia & New Zealand**

<http://www.minleon.com.au>

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[info@minleon.com](mailto:info@minleon.com)

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