Smart Home
Lighting Guide

Introduction

Electric light has revolutionised our world by vastly improving productivity, safety, comfort and convenience. Recent developments in smart LED lighting provide further improvements.

Smart Lighting

Smart lighting is connected and controlled via your smart device (i.e. phone, tablet or home assistant). Smart devices have become the perfect user interface.

Smart LED lights can easily create the perfect ambience. Set the mood by easily or automatically adjusting the brightness, colour and colour temperature of your indoor or outdoor lighting. Dimming, dynamic and colour changing effects are possible. At the end of the night turn all lights off with one button or command.

Schedule lighting routines for added security when you are away from home. Sensors can be used to automatically activate path lighting at night or improve security by alerting to the presence of intruders.

Use sensors to turn lights on when you arrive home at night or off after you leave a room.

Light is the most powerful regulator of human circadian rhythm. Human centric smart lighting adjusts lighting throughout the day to mimic natural daylight and help keep our body clocks synchronised. Bright daylight lighting can increase alertness and concentration during the morning and mid-day. Dim lighting in the evening assists to encourage sleep.

Achieve precise dimming down to very low levels.
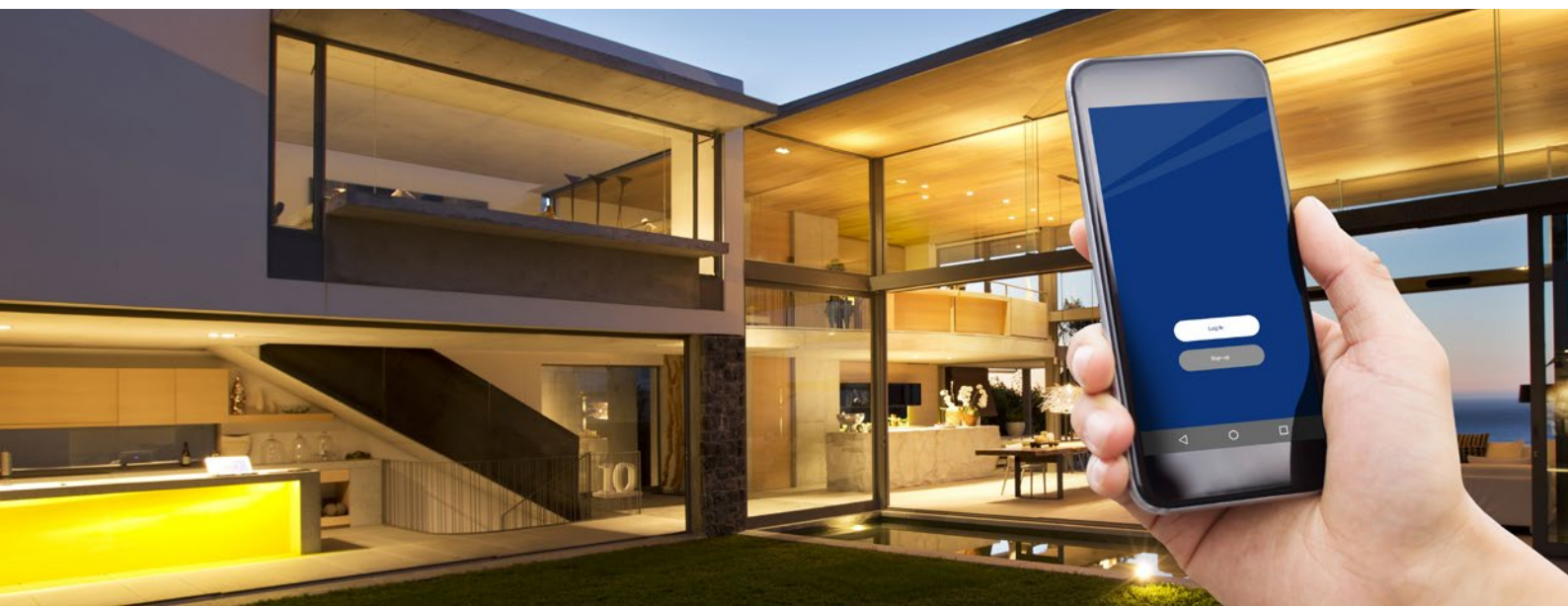
Daylight harvesting' saves energy by dimming lights near windows when daylight is bright.

Small to large systems

Start with as little as a single smart lamp (bulb), fitting or portable luminaire controlled by your smart device app or home assistant. Features can include dimming, colour changing and tuneable white (e.g. warm white, cool white or daylight colour temperatures).

Room or home systems can be set-up in new/existing homes using standard/ existing wiring and the addition of wireless controls.

Larger systems are available for larger homes or where additional features are sought. For example, to enable performance monitoring, soft transitions between scenes, variable fade rates, link lighting with other systems (e.g. security, access control, heating, ventilation, air conditioning, blinds/shutters, home assistant hubs) and perform complex functions involving all systems with one touch.

security

downlights

indoor lighting

outdoor lighting

switches

cooling

power outlets

power boards

heating

Control options

Increase the control, automation and customisation of your lighting.

Use smart device apps, your voice (e.g. Apple Homekit, Google Assistant, Amazon Alexa, SmartThings) or smart wall switches, controllers, sensors and touchscreens. Wirelessly connect using Bluetooth or Wi-Fi.


Additional control options can be beneficial for those living with reduced mobility or disabilities.

Wireless systems remove the need to re-wire during smart lighting installation or renovations

Sensors turn lights on when movement is detected to improve energy efficiency, safety and security. Use in garages, bathrooms, hallways and to control security lighting.

Wireless outlets allow portable luminaires (i.e. portable lamps) to be connected and controlled.

Set delay timers (e.g. to automatically turn bathroom fans off five minutes after the lights are turned off).
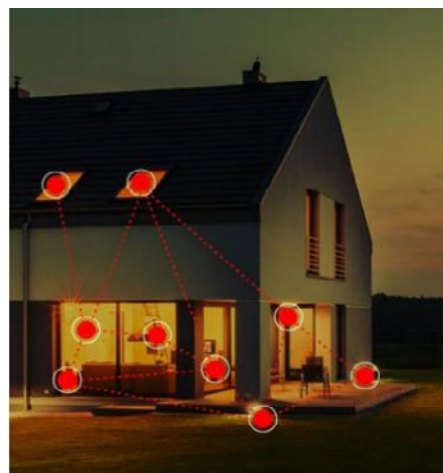
Energy Efficiency

LEDs use less energy and have longer lifetimes compared with traditional lighting. Smart or connected lighting systems that make use of dimming, movement sensors and timers can further reduce energy consumption.

Studies conducted by the U.S. Environmental Protection Agency (EPA) show that occupancy sensor control of lighting reduces energy consumption by 29 to 60 per cent depending on the use of the room[1].

[1] NEMA LSD 22-201, *Demand Reduction and Energy Savings Using Occupancy Sensors*

Interoperability of Smart Devices

Ask your supplier if their smart devices are interoperable with other systems and brands. Interoperability can help future proof your installation.

Consumer Engagement and Privacy

Consumers should be aware of the terms and conditions associated with the implementation and use of smart systems (e.g. voice operated home assistants). Data confidentiality and data encryption are key aspects of any smart device. Consumers should understand the role and importance of privacy in these products.

Security

The Australian Government has published its Code of Practice – Securing the Internet of Things for Consumers, outlining 13 voluntary principles aimed at maintaining internet security. Ask your product supplier if they comply with the Code of Practice.

Safety

Basic smart lighting products (e.g. replaceable smart lamp (bulb)) can be installed by homeowners.

Fittings and comprehensive systems require installation by licensed professionals.

About Lighting Council Australia

Lighting Council Australia is the peak body for Australia's lighting industry. Its members include manufacturers and suppliers of luminaires, lighting control devices, lamps, solid state lighting and associated technologies. Lighting Council's goal is to encourage the use of environmentally appropriate, energy efficient, quality lighting systems.

Lighting Council Australia members agree to abide by our code of conduct and supply products that comply with Australian Standards and regulations.

Talk directly to your lighting supplier about the features available in their smart lighting system.

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