

www.connectedlittleboxes.com

This document describes the software that runs a Connected Little Box.

# Box Overview

A Connected Little Box is an Internet of Things (IoT) device. It can do two things:

1. Take data from the real world and send it somewhere. An example of this would be to send a network message each time a passive infra-red (PIR) sensor detects a person.
2. Respond to a message from the network in some way. An example of this would be to display a red light in response to an incoming message.

A

{"process":"pixels", "command":"setnamedcolour","colourname":"red","pixelSpeed":500}

A particular box can both send message and receive them at the same time. A box can also react to message from itself. For example, a box that contains both a PIR sensor and a light could turn red whenever it detects a person in front of it.

A box understands commands that specify what sensors it is using and how they are connected. You can also tell a box what messages to send, when to send them and who to send them to.

The Connected Little Box software manages all the components in a box. When a box is turned on it loads settings for each component and then starts them running. A component is either a process that controls something (for example a WiFi connection) or a sensor that delivers data (for example a passive infra-red (PIR) detector). A component is associated with a collection of setting values (for example the WiFi process has settings for access points and passwords). The first thing that you