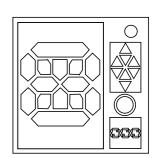# 14

How can this module be real if our eyes aren't real?

This module consists of a large 14-segment display, eight triangular buttons, an LED, and a three digit counter.

The display will initially show a pattern of the colours:
Black, Red, Green, Blue, Cyan, Magenta, Yellow, and White.
This pattern is the result of additively mixing the Red, Green, and Blue colour channels of the display.

Each of these channels shows a base 36 digit.
These digits can either be shown normally or inverted, where the segments that are normally on are switched off and vice-versa.

When a module is solved, the counter will increase and the display will change, showing a new pattern of base 36 digits.

The colour of the LED corresponds to a function that must be applied to the current total for each colour channel, T_n, and the base 36 digit shown, D_n:

	Digit is normal	Digit is inverted
White LED	$T_{n+1} = T_n + D_n$	$T_{n+1} = T_n - D_n$
Red LED	$T_{n+1} = T_n + 2D_n$	$T_{n+1} = T_n - 2D_n$
Green LED	$T_{n+1} = T_n + D_n$	
Blue LED	$T_{n+1} = 2T_n + D_n$	$T_{n+1} = 2T_n - D_n$
Cyan LED	$T_{n+1} = T_n + 2D_n$	$T_{n+1} = T_n - D_n$
Magenta LED	$T_{n+1} = T_n - D_n$	
Yellow LED	$T_{n+1} = T_n + D_n$	$T_{n+1} = T_n - 2D_n$
Black LED	$T_{n+1} = T_n - D_n$	$T_{n+1} = T_n + D_n$

If at any point, the total...
- exceeds 36, subtract 36 from the total until it drops below 36.
- drops below −36, add 36 to the total until it exceeds −36.

Once all of the patterns have been shown, the display will turn blank and triangular buttons will become a colour palette.
Pressing each of the triangular buttons will select its colour.
Pressing each segment will change its colour to the one selected.

To solve the module, enter the base 36 digits of the totals of each component onto the display, inverting each digit if it is negative, and mix the colours additively.

If the submitted pattern is incorrect, a strike is issued and the incorrectly coloured segments are shown.
The display will turn blank once a colour is selected from the palette.