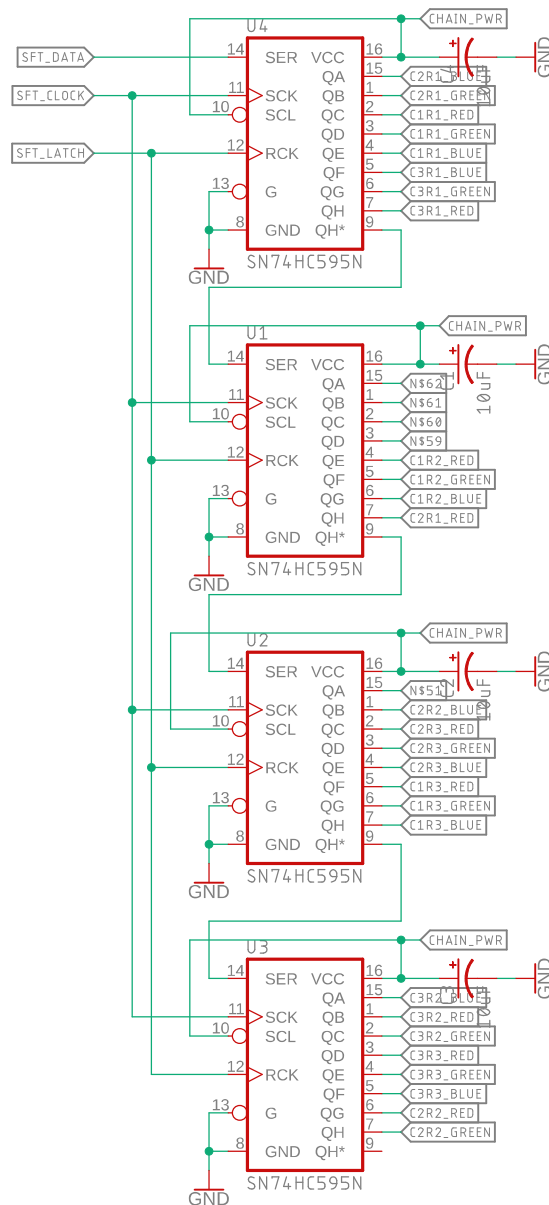


## Shift Registers

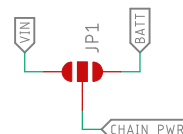
4 daisy chained 74HC595 Shift Registers



## Power Source Selector

This jumper selects where the power for the RGB LED array and shift registers comes from.

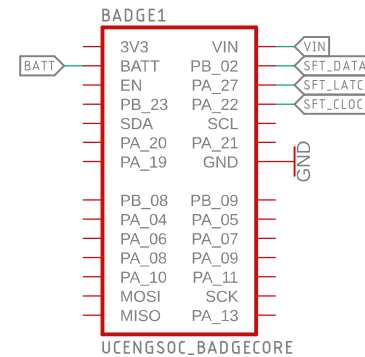
VIN: The USB 5V rail from the Badge Core  
BATT: The 3.7V LiPo Cell (before regulation)



## Badge Core

The interconnect of the shift registers and power to the badge core.

PB\_02 Data  
PA\_27 Latch  
PA\_22 Clock



UC Engineering Society  
RGB Chaos Carrier

The University of Canberra Engineering Society presents the RGB Chaos Carrier.

This carrier contains 9x RGB LEDs and 4x 74HC595 shift registers in a wearable badge. It was designed to teach you how to solder a simple electronic circuit, then present you with a programming challenge that's a bit beyond a simple Hello World.

To get started visit  
[prototypingcorner.io/engsoc/chaos](http://prototypingcorner.io/engsoc/chaos)

Prototyping  
Corner



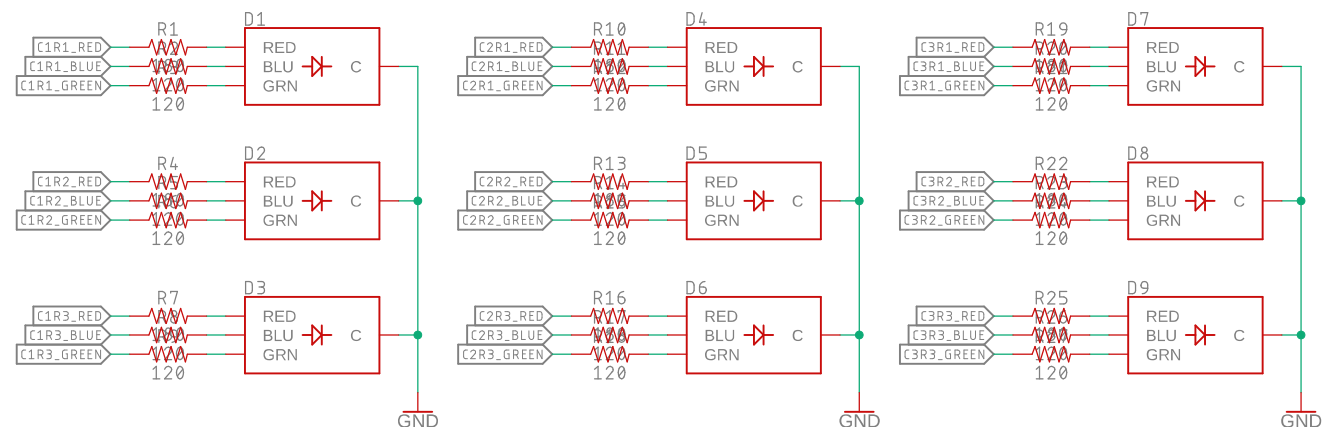
[prototypingcorner.io/engsoc/chaos](http://prototypingcorner.io/engsoc/chaos)

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## RGB LED Array

A 3x3 Array of Red-Green-Blue Light Emitting Diodes.  
Resistors provide current limiting.

120R for Green and Blue Channels  
180R for Red Channels



RGB Chaos Carrier

University of Canberra Engineering Society

04/2022

Jed Hodson (j.hodson.cloud)

Sheet: 1/1

Rev: v1.0.0