# A qr code on a white background Description automatically generatedPCB Metro Maps

A PCB Metro map of the public transit system of Washington DC, and Vancouver, BC.

The idea was to make a large PCB that was an interactive map of a metro train system. A microcontroller (ESP32) uses WiFi to poll the metro train API to get real time train location information then illuminate the stations when trains arrived.

The first design was of my hometown Vancouver, BC and the second design was of Washington DC. I decided to do Washington DC because I was doing a large 18-month project for the Washington DC Metro (WMATA) and wanted a memento of the project.

This idea was part of the “100 Days of Ideas project” from 2023, Idea 022 - TransLink map PCB.

**Demo mode** - The PCB Maps are currently running in demo mode, to show a speed up version of the trains moving from station to station.

**Open source:** Full Design files, and firmware can be found on the project page

ESP32, FastLED, KiCad, SVG2Shenzhen, JLCPCB, WS2812 (XL-1010RGBC-WS2812B)

# **A qr code on a white background Description automatically generated**About Steven Smethurst

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Steven Smethurst lives two lives. During the day he is the CTO at Chipkin Automation Systems making devices talk to each other and putting old devices on the internet. At night he is an Artist, Maker, Hacker, and all-around great guy.

Previous projects include

* Visiting 260 parks in Metro Vancouver BC
* Digital stained-glass windows
* Huge Sixteen Segmented Displays
* Laser Kaleidoscope and Laser clocks
* CNC Zen Garden
* 20ft mirrored dome called the pocket universe
* Giant Claw Game
* Flocking AI - “Field guide of imaginary birds” made before AI was cool.