# How to set up JMRI for remote operations

The instruction below outlines how to set up remote operations with JMRI with either (A) Digitrax DCC System [page 1] or (B) Raspberry Pi [page 2] DCC system:

## (A) Digitrax Instructions

These instructions are if you plan to use JMRI (Java Model Railroad Interface) with a Digitrax Chief to control trains.  If you are using a Raspberry Pi, then you need to follow the Raspberry Pi instructions in the next section.

These instructions assume that you already have:

- an old laptop
- A Digitrax Chief (or similar command station)

You will need to purchase a LocoBuffer-USB made by RR-CirKits.

Once you have your LocoBuffer, watch the video below (from start to 20:00 - stop when he shows how to set up stationary decoders to control turnouts) ↓

Getting Started with JMRI and Digitrax LocoNet: Computer Control for Model Trains

Now watch the next video starting at 20:00 (after the section on turnout control) to learn how to add locos to your roster ↓

JMRI: Layout Editor, Interlocking, Routes, Roster and Throttles

At this point, you should be able to control the trains on your layout with JMRI.  To allow engineers to control trains on your layout via the internet, watch the video below ↓

Control Model Railroad via the Internet with JMRI

If you have turnouts that are powered and you have added a DCC stationary decoder, then you can watch the stationary decoder sections of the two video above to learn how to set them up in JMRI

### (B) <u>Raspberry Pi Instructions</u>

These instructions assume that you already have:

- A Raspberry Pi
- A command station

You will need to purchase a LocoBuffer-USB made by RR-CirKits for Digitrax layouts or a USB interface for NCE layouts. Other command stations will have their own interface unit between the computer/Raspberry Pi and the layout. For the NCE USB interface you need to set the jumpers correctly for the type of command station you have.

[A USB interface for your NCE PowerCab Pt1](#)
[A USB interface for your NCE PowerCab Pt2](#)

The first thing you will need to do is to download the JMRI Raspberry Pi image and install it onto the Raspberry Pi. Use this link: [https://mstevetodd.com/jmri-raspberrypi-access-point](https://mstevetodd.com/jmri-raspberrypi-access-point)

On a Mac, I used VNC Viewer at [https://www.realvnc.com/en/connect/download/viewer/macos/](https://www.realvnc.com/en/connect/download/viewer/macos/) instead of TightVNC suggested in the link. This viewer allows you to access the Raspberry Pi from your main computer. Other operating system versions are available.

At this point the Raspberry Pi is running JMRI and all that's left to do is to configure JMRI per above links.

*The Digitrax instructions above were written by Steve Adamson while the Raspberry Pi instructions were written by Mark Mombourquette.*