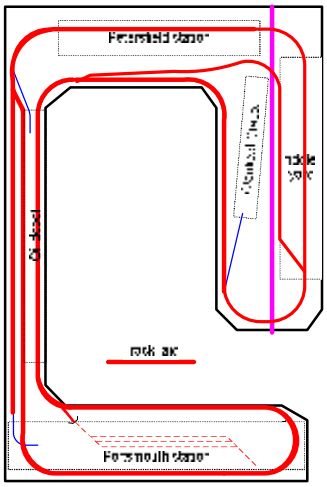
9: Into the Last Straight



More correctly, into the last ten of them… It's time to make the fiddle yard!

Fiddle Yard Design

The fiddle yard has been changed quite a bit since the initial design. Its purpose is twofold: it needs to hold trains ready for a new one to run out onto the railway, and it needs to allow trains to be added and removed manually.

The original design called for 4 "through" roads in each direction, plus a siding on each. This would allow trains to be added and removed. The "revised" design has 5 through routes on each track. Bu the one closest to the front edge is spaced apart by more than normal, to allow hands to get around it. I'd observed that is a train is added to the rails facing one way, it can be turned around through the reverse loops: so there was only a need for one track accessible to humans. By careful positioning of points, the 5 tracks all fit the original baseboard design and avoid having points located over timber forming parts of the baseboard.

Planning

The fiddle yard is the first part of the railway that I've removed and constructed away from its final home. This was really forced upon me: it consists of its own timber frame, but sits on the "foundation" timber framework. Unfortunately the timber bracing didn't align, and hand access from below can be poor in places. I decided to construct the pointwork and storage roads away from the main railway, then bring it back and run the tracks in and out after completion and testing.

With around 8 screws removed, the fiddle yard was off the railway and could be worked on. I'd already connectorised most of the necessary wires onto the board; after a quick bit of work a few more connectors were added and thereafter all wires crossing the fiddle yard boundary went through connectors.

It was clear I'd be needing to do a lot of work underneath the fiddle yard, and fairly likely without precautions that damage would result if I stood it on its side. Quick tests with two bits of plywood identified that two "feet" could be added to allow it to stand robustly on its side; these enabled a phenomenal rate of wiring later on.

Finally, the track positions were determined and marked onto the cork. This gave a pretty good idea of what would be where; the points could be checked for clearance to mount their motors etc.

Getting all of the materials gathered ready too time. This unit has 18 points and motors, 22 metres of track, one block detector, two signal controllers and two accessory decoders. All these had to be purchased and prepared.

Track Laying

This was quite conventional, as previously described. All of the points were laid, and their point motors tested; the straight track in between was added after that phase was complete.

Wiring & Electronics

With the fiddleyard stood onto its temporary "feet", access for wiring was superb. The productivity improvement was huge. One of the main reasons, I think, was because I didn't need to keep moving to get access to both ends of a wire or to check I had the right position for something. Two of the remaining three locales on the railway will lend themselves to this approach, and the third may be in for a shock!

As usual I added all the dropper wires, then added the electronics. This was quite deliberately done AFTER all of the holes were drilled. The units include two DAC10 accessory decoders, two BD4 block detectors, two SIGM20 signal controllers and a BDL168 block detector. The boards are secured to the bottom of the baseboard using self tapping screws and spacers. Track power wiring uses 24/0.2mm wire while signals and point motors are wired using 6 core alarm cable. All the necessary wiring was, again, very quick to add.

The fiddle yard has the first signals to be installed on the railway. These are home made from LEDs and just sit in the baseboard: they aren't proper scenic items, but instead as to tell someone which train can leave the fiddleyard. They were constructed using veroboard, and wired to 6 core alarm wire. Beware: the insulation on this wire isn't designed for soldering!

Once wired and tested, an oval hole was cut into the baseboard and the hole cleaned up as well as practical. The signals are held in place from underneath using a single self tapping screw.

The module was offered up to the railway and all of the power feeds, block detects and points were tested before it was reinstalled.

Reinstallation

This was quite painless: the module was screwed back into position, and the 4 rails in and out were then installed (they had previously been marked).

The reverse loop was also installed, completing the main track loop. Proper train operations are now possible, albeit with only a few places to go!

Operation

Most of the trains have been run around the layout this weekend, mostly to determine of there are any "issues". There have been no embarrassing "clunks" this time (last time there was insufficient clearance above the track in some hidden sections). After a whiz around with the track cleaning rubber and vacuum cleaner, and loco wheels cleaned with the Trix brush, the operation has been quite smooth. We've had the full set of 8 coaches for the Eurostar out for the first time.

Loco Roster

A bit of progress: the class 159 DMU now has a decoder. This is a split frame chassis, but without a PCB. I found guidance on the web to help with this one.

Locomotive	**Decoder**
Kato Eurostar	DN163K0B
Farish class 94xx 0-6-0 PT	DZ123
Farish class 08 shunter	TCS M1
Farish Class 47	DZ123
Farish class 66	DZ123
Farish class 159 DMU	DZ123
Thomas the tank Engine	Not yet!