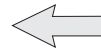
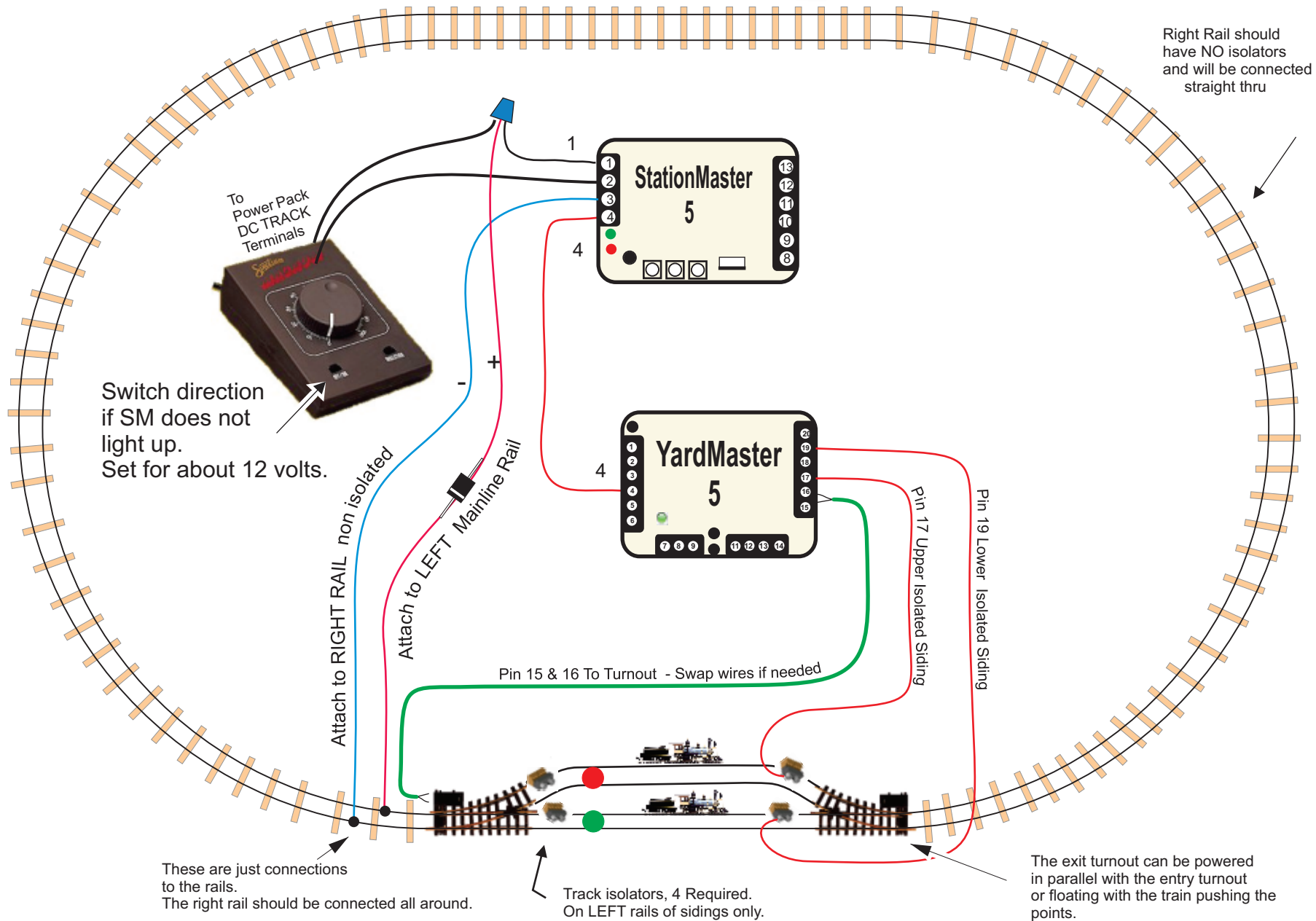


Alternate 2 Trains at a Siding with a 3rd train Traveling

With Slow-Down Realism
- One Direction -

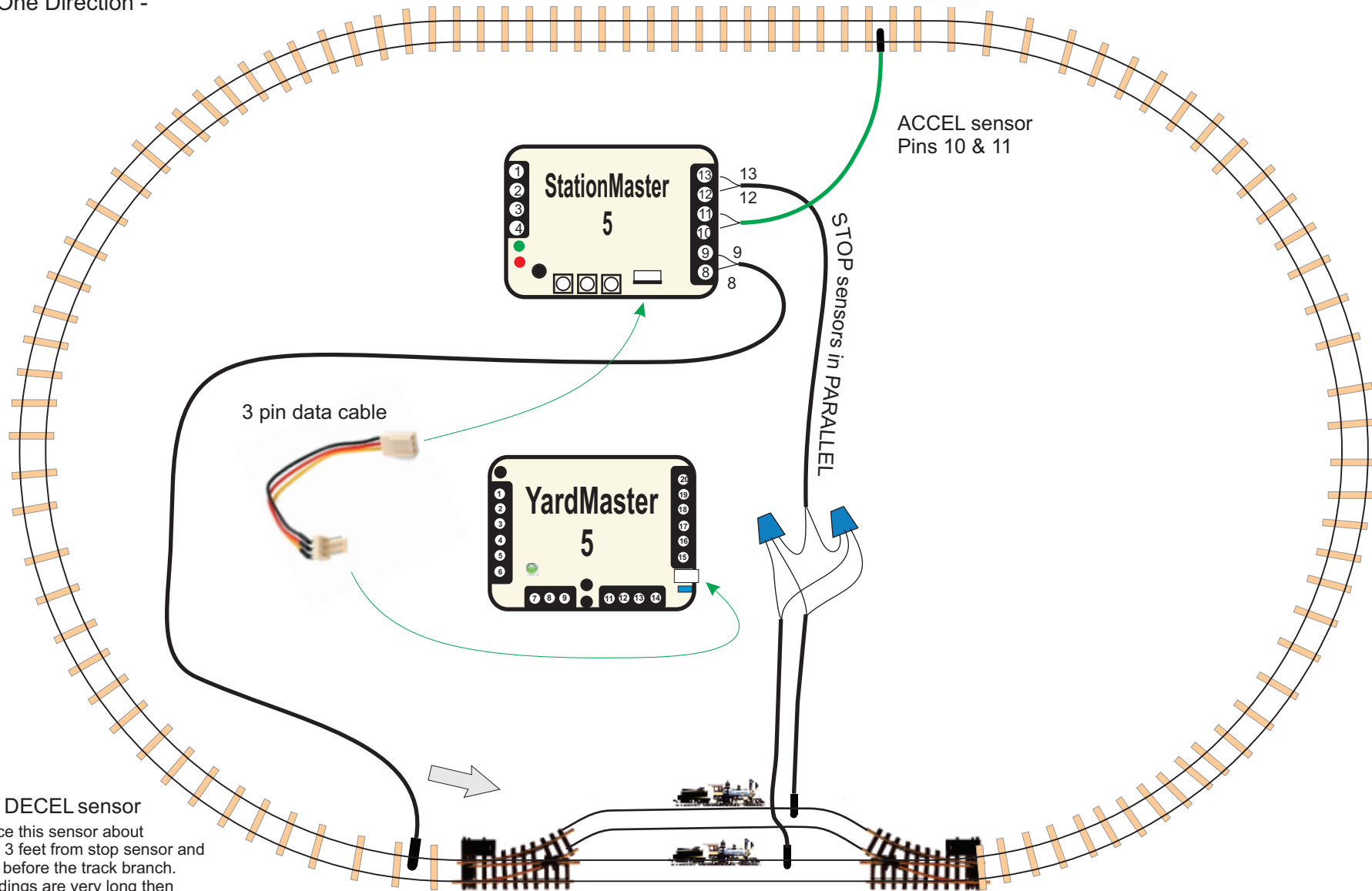
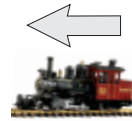


Place MAGNET on bottom of engines.



Alternate 2 Trains at a Siding with a 3rd train traveling

With Slow-Down Realism
- One Direction -



DECEL sensor
Place this sensor about 2 to 3 feet from stop sensor and just before the track branch. If sidings are very long then use 2 DECEL sensors in parallel and place one in each siding.

Notes:

1. Program the StationMaster deceleration rate to reach the STOP sensor. Self-adjusting cannot be used.
2. Sensors have NO polarity.
3. Program time delay for infinite so traveling train releases stopped train.

Alternate 2 Trains at a Siding with a 3rd train traveling.



Parts Required:

StationMaster:	Qty 1	4 AMP or 10AMP version.
YardMaster:	Qty 1	
Turnouts:	Qty 2	One is powered and the second can be either floating or powered.
Track Isolators:	Qty 4	
Magnets:	Qty 3	(or one per train)
Sensors:	Qty 4	

Description

This hookup will allow 3 trains to run around the layout. One of them will always be in the siding while the other two trains will be traveling. After the siding switches the next train will wait until the 3rd traveling train releases it using the ACCEL sensor. At this point both trains are traveling. The ACCEL sensor must be located such that the exiting train has enough time to accelerate and leave the siding before the next train enters.

StationMaster Hookup:

Terminals 8 and 9 are the DECEL sensor inputs and attach to the DECEL sensor as shown. (No polarity)
If the siding is very long then a sensor can be placed in each leg wired in parallel.
Terminals 12 and 13 are the STOP sensor. Attach these to the STOP sensors in parallel as shown. (No polarity) The train will stop just past this sensor.
Terminals 1 and 2 attach to the transformer. Change the train direction on the transformer if the StationMaster does not light up.
Terminal 3 attaches to RIGHT RAIL which is common ground throughout.
Terminal 4 attaches to YardMaster terminal 4.
Terminals 10 and 11 attach to the ACCEL sensor placed about half way around.

StationMaster Programming:

A StationMaster ***factory default*** may set everything perfectly to operate this hookup except for the deceleration rate which must be set so the train reaches the STOP sensor, and the delay time which must be set for maximum. When the delay time is set for maximum the ACCEL sensor will be required for the stopped train to start up again..

YardMaster Hookup

Terminal 4 attaches to StationMaster terminal 4.
This is the voltage output of the StationMaster.

Terminals 15 and 16 attach to the turnout. You may need to swap these wires at the turnout as necessary so that the turnout direction matches the siding which has power.

Terminals 19 and 17 attach to the LEFT isolated rails of the sidings. The YardMaster will switch the voltage entering terminal 4 between these two terminals.

The 3 pin keyed connector attaches between the StationMaster and YardMaster AS SHOWN..

YardMaster Programming:

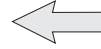
No programming however a factory reset may be necessary.

Additional Notes:

The train direction shown in the drawings assumes "Large Scale" trains which do not follow NMRA standards. For NMRA trains the trains will travel in the opposite directions as indicated by the arrows in the drawings. These include HO, N, etc. For NMRA trains to go in the directions as shown swap the 2 wires that attach to the StationMaster in terminals **3** and **4**, and swap the mainline power from StationMaster Pin 1 to Pin 2. (attaches to diode)

Alternate 2 Trains at a Siding with a 3rd train Traveling

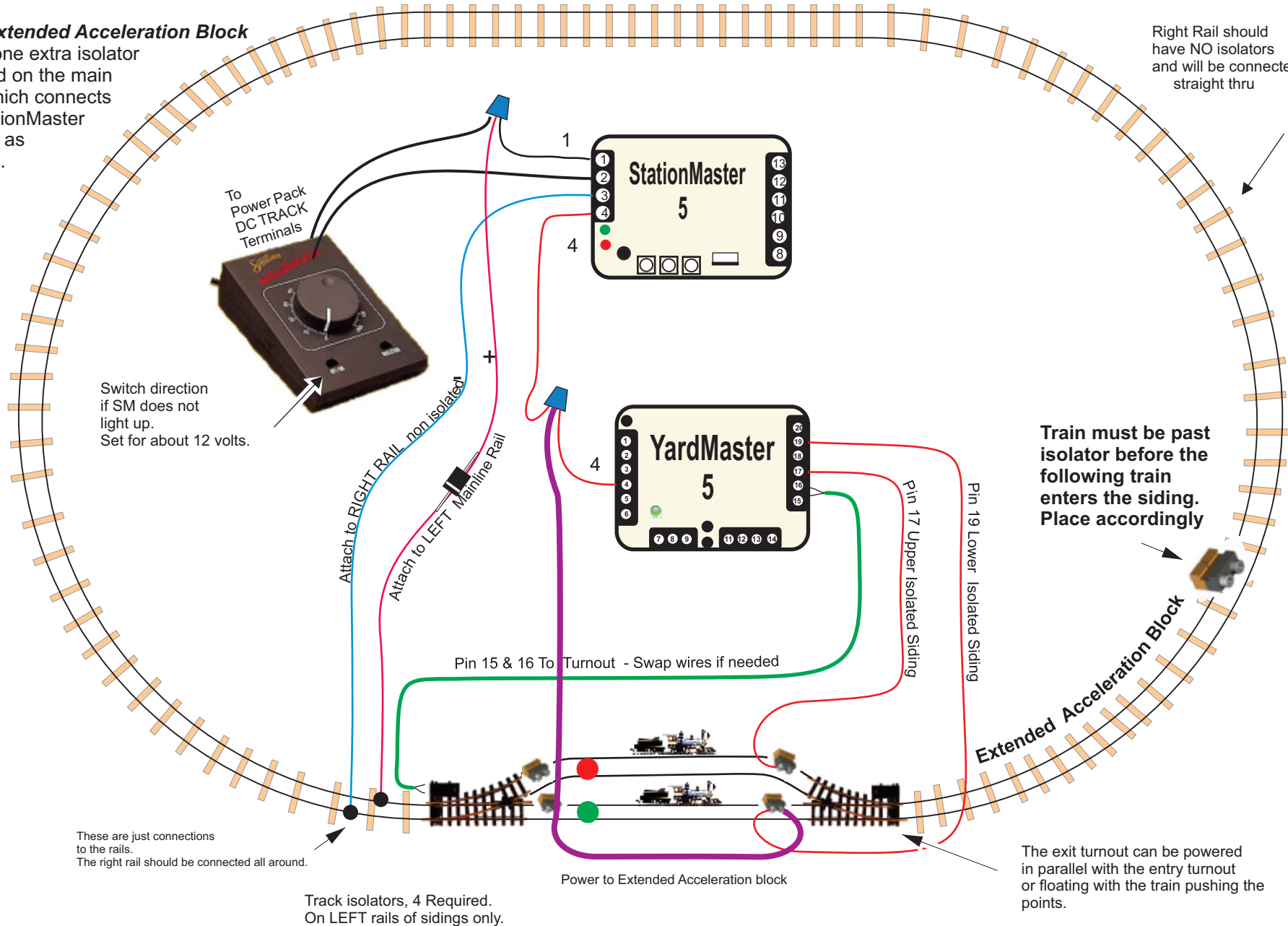
Alternate hookup with **extended acceleration block**
- One Direction -



Place **MAGNET** on bottom of engines.

The **Extended Acceleration Block** adds one extra isolator located on the main line which connects to StationMaster Pin 4 as shown.

Right Rail should have **NO** isolators and will be connected straight thru



Switch direction if SM does not light up. Set for about 12 volts.

Train must be past isolator before the following train enters the siding. Place accordingly

These are just connections to the rails. The right rail should be connected all around.

Track isolators, 4 Required. On LEFT rails of sidings only.

Power to Extended Acceleration block

The exit turnout can be powered in parallel with the entry turnout or floating with the train pushing the points.