Automation of a Simple Display Layout
by Dennis Olsen

Our garden railroad club has a small, simple, G scale Thomas & Friends™ layout that we set up at local train shows several times a year. We use standard out-of-the-box DC locos. Thomas typically runs in circles at a constant speed all day long as we attend to our visitors. We wanted to add a little automation to the layout to break up the monotony just a bit and the "Thomas Project" was born.

The basic requirements for the Thomas Project:

- Simple to install on a temporary layout
- Require minimal operator attention
- Require minimal loco modifications
- Inexpensive to build (last but not least)

I came upon the idea of using a Magnetic Critter Control (MCC) card from G Scale Graphics. The MCC is reasonably priced, nicely rated at 4 amps, and would allow for short, random, station stops with a reasonable acceleration and deceleration for the loco at the station. I use the MCC card in one of my battery powered trolleys with good results. However, this installation would be a little different, backwards, you might say.

In a typical Critter Control installation, the MCC card along with the reed switches are located onboard the loco or trolley and track mounted magnets are used to control the action. In the Thomas Project installation, the MCC and station stop reed switch are mounted trackside and the magnet is attached to the underside of Thomas. (No other changes to Thomas are required.)

OPERATION - SET IT AND FORGET IT

The Magnetic Critter Control was factory programmed for a 10 second station stop and is user set for 50% random stops. The speed and acceleration rates have been user set based on some experimentation on the layout.

Thomas, along with Annie and Clarabelle, are set on the tracks facing the proper direction. The DC power is turned on and the START/STOP button is pressed - that's it!

Thomas will accelerate and circle the layout. He will decelerate and stop at the station about 50% of the time, wait 10 seconds then accelerate out of the station to resume his journey.

At the end of the day the START/STOP button is pressed once again and Thomas slows to a stop for a much deserved rest.
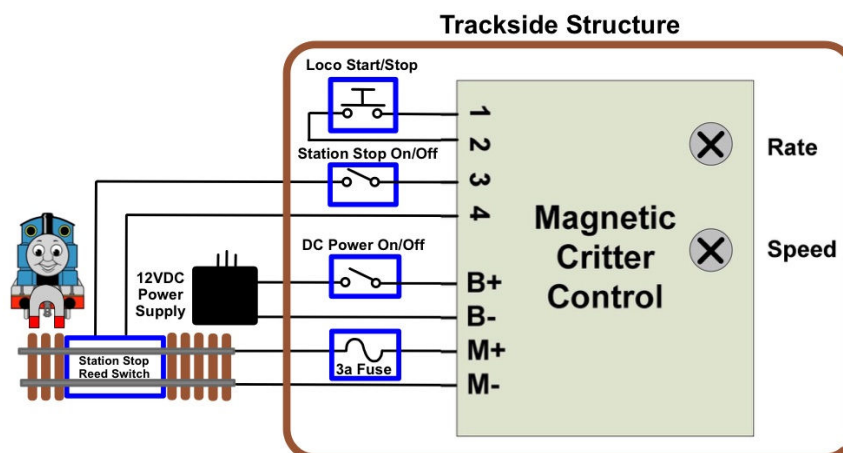
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