

Wireless Sensor System

The Wireless Sensor system includes sensor transmitters and a wireless receiver board attached to the Shuttle.

Wireless Transmitters

The Station Stopper includes three wireless sensors which are pre-configured for “END 1”, “END 2”, and “CENTER”. These operate with a 9V battery that should last well over a year, so removing the battery is not necessary when trains are not running. The train will carry a magnet that will trigger the sensors.

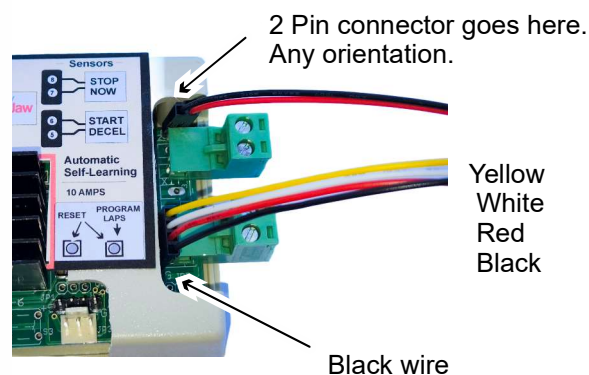
Both the wireless transmitter and receiver board will blink blue when a train has been detected. Please protect the transmitter module from moisture.



Wireless Receiver - Shuttle Cable Attachments

The wireless receiver board is attached to the Shuttle with the two cables provided.

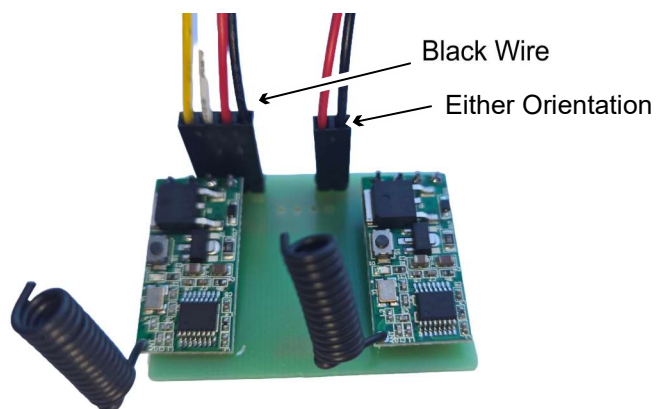
- The 2 pin cable attaches to the 2 pin header next to the sensor connectors. There is no polarity, so install in either orientation.
- The 4 pin cable is attached to the 4 pin header next to the sensor connectors. **Install with the black wire away from the 2 pin connector.** The polarity must be correct to operate, but the receiver board will not be damaged if installed backwards.



Wireless Receiver Board Cable Attachments

Install cables as shown.

- The 2 pin cable attaches to the 2 pin header in any orientation.
- The 4 pin connector attaches to the 4 pin header **Installed with the black wire towards the 2 pin connector.** The bottom of the PC board also notes the location of the black wire.



After the cables are attached, the Shuttle is ready to run! When a sensor is triggered, a blue flash should occur on one of the receiver modules. If more than one module flashes, then one of the receivers must be re-programmed.

See “Programming wireless sensors” for more information on adding or replacing sensors.

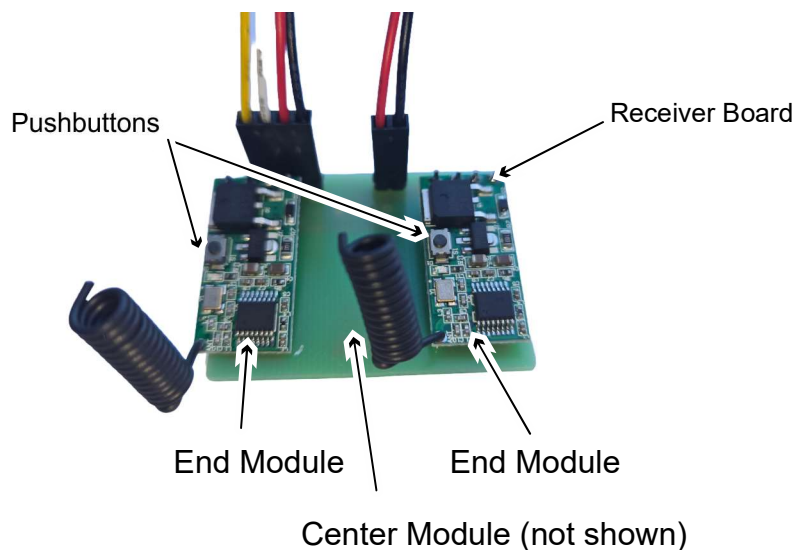
Programming Wireless Sensors

The Reversing Shuttle is shipped with the END1, END2, and CENTER wireless sensors already programmed, however it is possible to add, replace, or remove sensors at any time.

Similar to garage door openers, sensor transmitters are 'married' to a receiver. However, this has already been done for you.



All programming is done on the Receiver Board and the transmitters are not programmed. The Receiver Board contains three modules, each with their own programming pushbutton. The two outer modules are the end receivers, and the center module is the in-between stop receiver. (The center receiver module is not shown below)



For all programming, the Shuttle must be connected and powered up to provide voltage.

Erase All Connections on a Module

To erase all connections on a module, PRESS THE PUSHBUTTON EIGHT (8) TIMES. The module will respond with several blinks. Repeat this for each module you wish to program.

Connect a Transmitter to a Module

One or many transmitters (sensors) can be married to a receiver. Perform these steps to marry a transmitter to a receiver:

- 1) Locate the desired module on the receiver board. (Ends or in-between stop modules)
- 2) Obtain a magnet to trigger the train sensor on the transmitter.
- 3) PRESS THE PUSHBUTTON ON THE APPROPRIATE MODULE ONCE. After 2 seconds the blue LED will come on.
- 4) Trigger the train sensor with a magnet. The receiver will respond with several blinks indicating a connection.

Repeat for each train sensor, programming the appropriate receiver module. The receiver will blink blue when a signal has been received. If more than one module blinks when a sensor is triggered, then programming must be erased on the incorrect module, and then re-programmed.