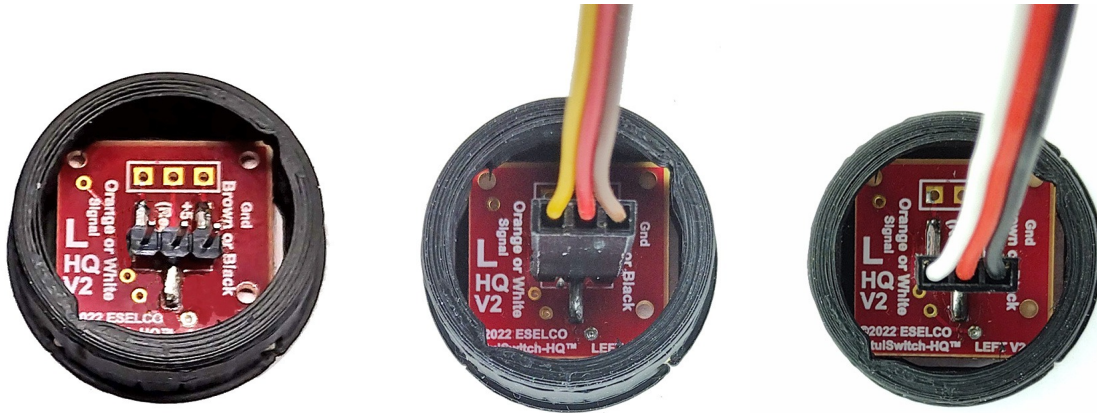


IntuiSwitch-HQ Cable Connections

IntuiSwitch-HQ controls provide input to and display status from control boards like the RR-CirKits Signal-LCC. Connection is via a three-wire cable of the same type as used for hobby servo motors, although the electrical signals on the wires is different than that used by servos. The three wires of hobby servo cables will be either White, Red, and Black, or Yellow-orange, Red and Brown. Either can be used.

Plug one end of the cable on to the three-pin header on the back side of the IntuiSwitch-HQ control. Printing adjacent to the 3-pin connector on the IntuiSwitch lists which wire color from the cable should go to which pin of the header. Hold the cable connector perpendicular to the 3-pin connector on the IntuiSwitch when pushing the cable on or pulling the cable off of the IntuiSwitch header.



Orient the cable so the Orange or White wire goes to the pin labeled “Orange or White”, and the Brown or Black wire goes to the pin labeled “Brown or Black”

Connecting to RR-CirKits boards

The other end of the 3-wire cable should be plugged on to one of the 8 sets of 3 pins on the QL Breakout Board, oriented to match the wire colors to the legend (B R O for Brown Red Orange, or B R W for Black Red White) printed on the QL Breakout Board.

Connecting to an Arduino board

The wires of the cable should be connected as follows:

Wire in IntuiSwitch-HQ Cable	Connect to:
Black or Brown	Arduino Ground
Red	Arduino +5V
White or Yellow-Orange	Desired Arduino digital I/O line.

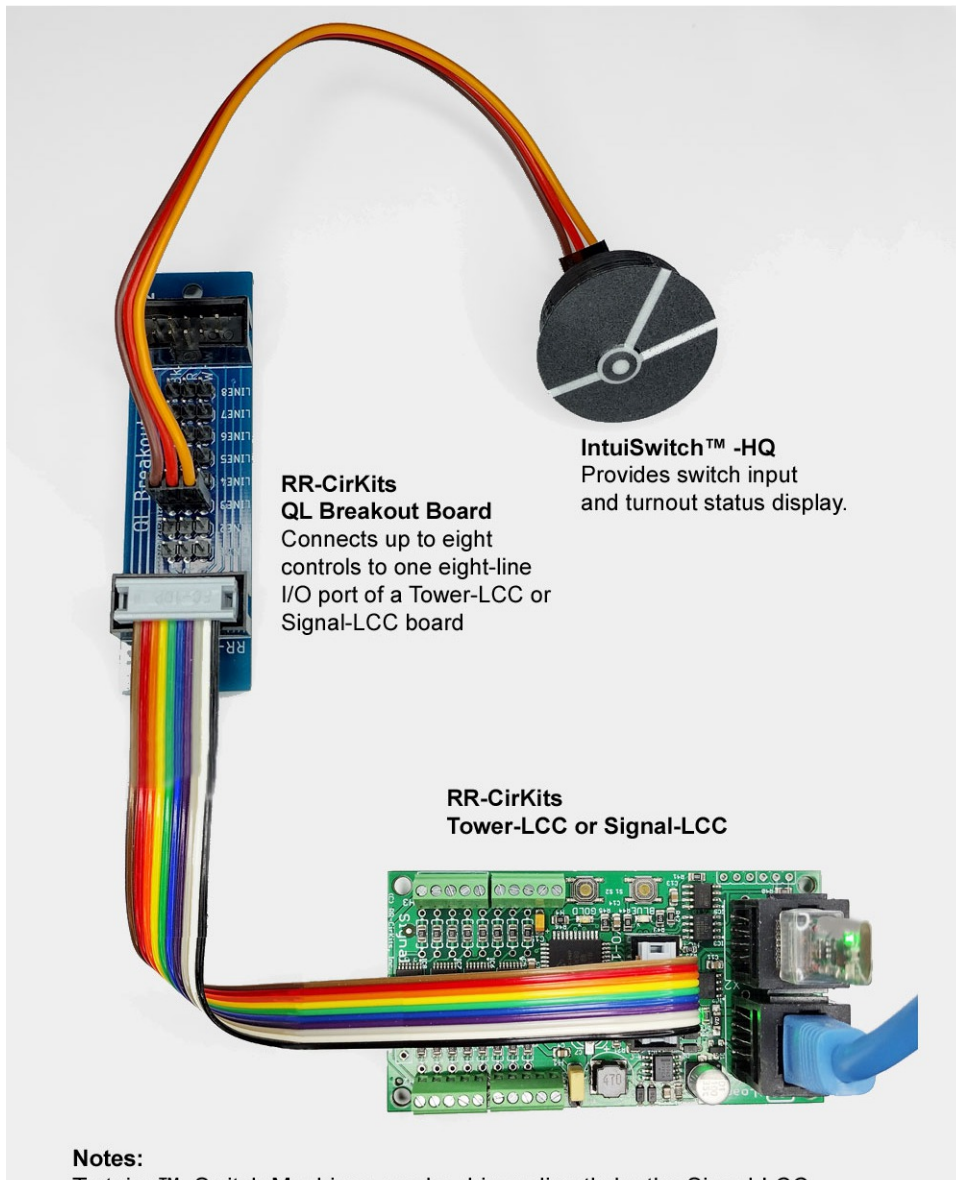
Connecting to other control boards

Contact us for details. [email info@intuiswitch.com](mailto:info@intuiswitch.com), phone 913-489-9033, or scan the QR code to visit our website (www.intuiswitch.com).



scan for website

Typical connection using -HQ IntuiSwitches with LCC control boards from RR-CirKits



**RR-CirKits
QL Breakout Board**
Connects up to eight
controls to one eight-line
I/O port of a Tower-LCC or
Signal-LCC board

IntuiSwitch™ -HQ
Provides switch input
and turnout status display.

**RR-CirKits
Tower-LCC or Signal-LCC**

Notes:

Tortoise™ Switch Machines can be driven directly by the Signal-LCC, or via an SMD-8 board plugged into a Tower-LCC or Signal-LCC. Other types of switch machines can be driven with appropriate boards plugged in to a Tower -LCC or Signal-LCC board. Switch machines (regardless of type) can then be controlled by input from the IntuiSwitch™ controls and other controls, events, and logic on the LCC network. The controls do not need to be connected to the same Tower-LCC or Signal-LCC as the switch machine they are controlling. See RR-CirKits documentation for switch machine wiring.