

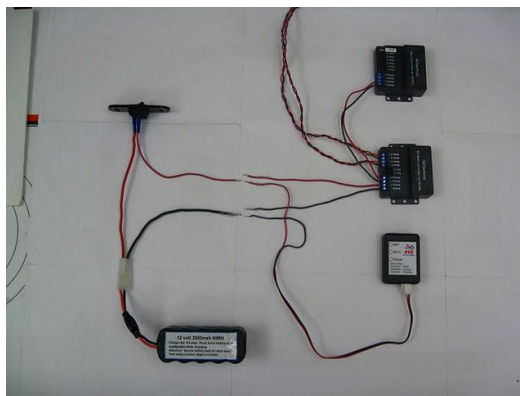
FTC ALTERNATE SAMANTHA WIRING CONFIGURATION

Maintaining control of your robot throughout a match requires a solid, continuous power connection for the Samantha Wi-Fi module. Some teams have experienced intermittent losses due to shaky connections within their robot's 12V power harness. In order to improve reliability, the FTC Game Design Committee has suggested a way to re-wire power so that Samantha has a direct connection to the 12V power switch. This will prevent any loose connections in your Tetrix controller chain from disrupting power to Samantha.

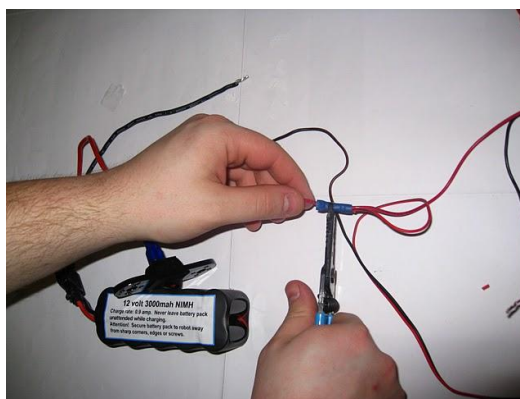
Picture 1 shows the general wiring layout suggested. The red wire from the 12V switch is connected simultaneously to the red wire of the Samantha power feed and to the wires leading to the robot's first Tetrix controller box. Similarly, the black ground wires from both Samantha and the Tetrix controller are connected directly to the 12V battery ground lead. You can carefully pull apart the first several inches of the Samantha power wires as needed in order to make the new connections.

There are two ways to make these connections. The Game Design Committee has approved the use of butt-splice connectors, which can be crimped onto the three wires to be joined. Picture 2 shows the use of one such connector available at any Radio Shack (part info below). Alternatively, the wires can be soldered together and then covered with electrical tape or with heat-shrink tubing.

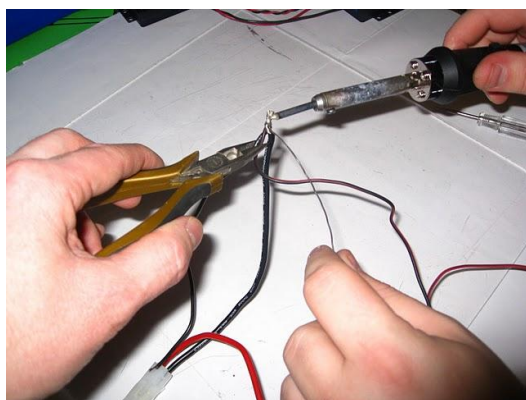
Pictures 3 illustrates simple soldering. When soldering, always remember to heat the wires thoroughly and touch the solder to the wires, not directly to the iron, to melt it for a secure, reliable connection.



Picture 1



Picture 2



Picture 3

As usual, always remember to tie down wires safely out of the way of any possible entanglement and to prevent strain on wires or connectors.

RadioShack connectors:
Crimp-On Butt Connectors (10-Pack)
Catalog #: 64-3037
<http://www.radioshack.com/product/index.jsp?productId=2151268>

Heat-Shrinkable Butt-Splice Connectors (8-Pack)
Catalog #: 64-034
<http://www.radioshack.com/product/index.jsp?productId=3004022>