

QBOT V3 Troubleshooting

Communication Issue

Problem: The machine isn't moving/stitching following the pattern. One minute everything was fine, then the next minute nothing and/or strange behavior.

Quick Solution: There is a communication issue between QBOT and the Android tablet. On the tablet, turn off WiFi and disable other paired Bluetooth devices.

In-Depth Solution:

The hesitation and strange behavior - a stuttering and hesitation that doesn't resolve itself, but rather appears as if the tablet and QBOT are hung up - is typically caused by an interference of some sort with the Bluetooth connection. On the tablet side, make sure that the QBOT is the only item in the 'paired' list of Bluetooth devices. This eliminates the possibility that a communication error is causing the hesitation.

Possible causes of communication interference:

1. Moving the tablet beyond the range of the Bluetooth signal. Remember, this is a Bluetooth connection and not a WiFi Connection. The range of Bluetooth is very limited. We recommend that the tablet stay in the same room as the QBOT during quilting.
2. Other Bluetooth devices that you may have connected to the tablet before and now they are within range of the tablet and they are constantly 'pinging' the tablet to connect again. Bluetooth devices can be jealous of the QBOT and started talking to the tablet, asking to connect again and again and again. Even though the tablet is still connected to the QBOT, it can be spending too much time negotiating with the other device and finally it can't communicate with either effectively. You can eliminate this by unpairing the other devices from the tablet and rebooting the tablet.
3. WiFi interference. There are two "flavors" of WiFi interference. In Android version 4.4.2, there is/was a known bug whereby, if the tablet is negotiating with a WiFi connection, it intermittently drops the Bluetooth connection. This has been reported empirically from users running Android phones. They report that their Bluetooth headsets have static or dropouts when WiFi is negotiating. For QBOT, that static or dropout translates to stuttering and

Problem: The machine isn't moving/stitching following the pattern. One minute everything was fine, then the next minute nothing and/or strange behavior.

Continued from Page 1:

hesitation. To eliminate this as a potential source of your issue, you can turn off WiFi on your tablet and see if that is the problem. If you have strong WiFi in your house and the tablet doesn't have to 'hunt' for a signal, this probably isn't causing your issue. If you have a weaker WiFi signal, then this might be causing your problem.

The second flavor of WiFi interference is actually caused by the WiFi signal coming from your router. WiFi has many channels, and many routers automatically change the channel that they broadcast on to avoid interference from other signals. It may be that one day your router is broadcasting on Channel 1 and everything is working great, but then, unbeknownst to you, your router changes to Channel 3 and all of a sudden you have a problem with your QBOT.

Channels 1 and 6 do not conflict with QBOT. The channel on most routers can be changed and set to a 'manual' setting which locks the channel in place. This can be an involved process, but it is worth checking. The good news is that there is a free app that you use to check which channel your router is broadcasting on. It is called "WiFi Analyzer," and it is available from the Google Play Store.

4. Generic 2.4GHz noise and interference. The biggest offenders from interference in the 2.4GHz band are microwave ovens, cordless phones, baby monitors, and security systems. These systems have a complete disregard for other things operating in the same frequency band.

5. USB 3.0 cables. A little research has shown that USB 3.0 cables produce a lot of interference with Bluetooth signals.