Abstract

This lab is on building one 3-foot cat 5 “straight through cable” and testing it with a cable tester. The color scheme of the cable conforms to T568B or industry standard.

Introduction

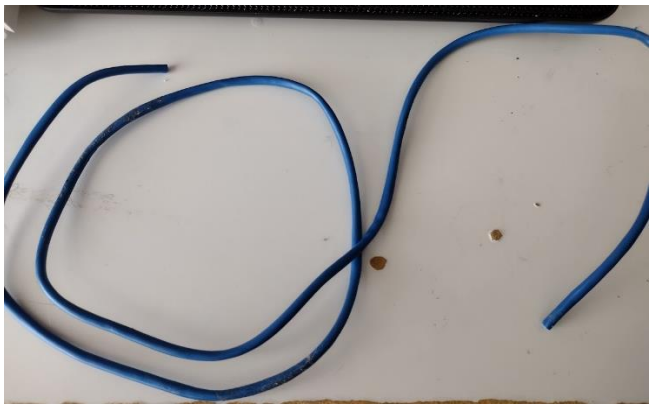
For this lab, I set to build a “straight through” cat 5 cable using a cat 5 ethernet cable, cable tester, RJ-45 connectors, wire cutters, crimping tool, and scissors. This will involve using the resources provided to follow the procedures in order to ensure I do everything correctly. I assume that I will be able to successfully complete the lab but will most likely make mistakes along the way as this is my first time doing something of this nature.

Details

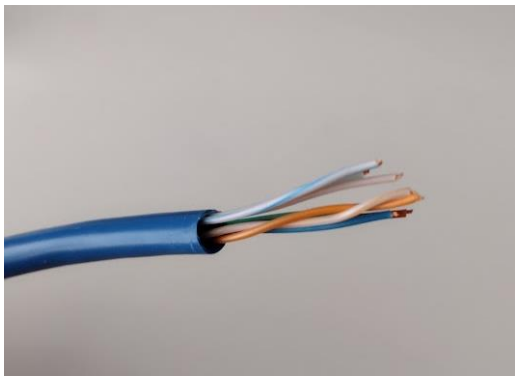
To complete the lab I will cut the cat 5 ethernet cable to the appropriate length, strip back the jacket of the cable (about an inch and a half), untwist the twisted pairs all the way back to the jacket, straighten the wires out, arrange the wires in the 568B color code order, line them up as precisely as possible, cut the wires so that only 5/8 of an inch is exposed, slide the wire into the connector making sure that the jacket is also inserted past the depression tab, crimp the connector, and then repeat the process on the other side of the cable. When all that is completed, I will use the cable tester to ensure that everything terminated properly.

Results

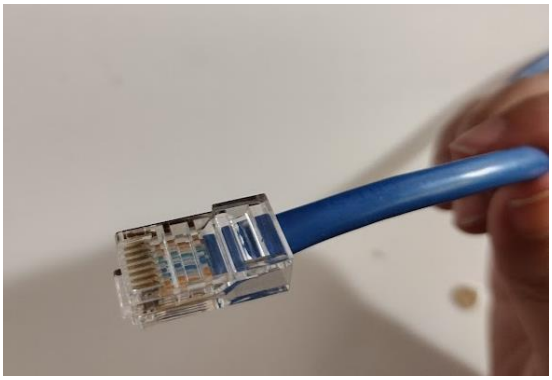
When I followed the procedures mentioned above, I was able to successfully build a straight though cable that terminated. The first thing I did was cut the cable on both sides. Shown below is the cable before I terminated it and its termination points.

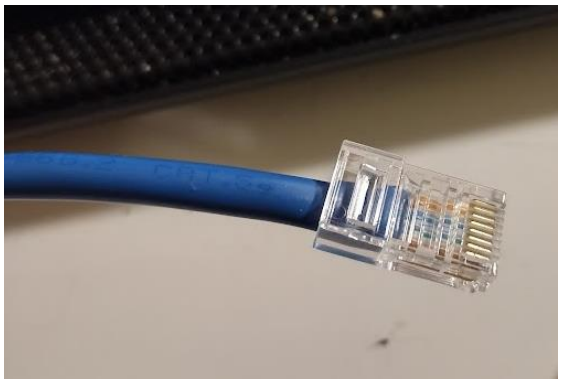


Afterwords, I attempted to strip back the jacket on the cable. This was where I encountered some trouble as I kept cutting too deeply, accidently cutting the wires. On my third attempt though, I was able to successfully strip back the jacket on one side.

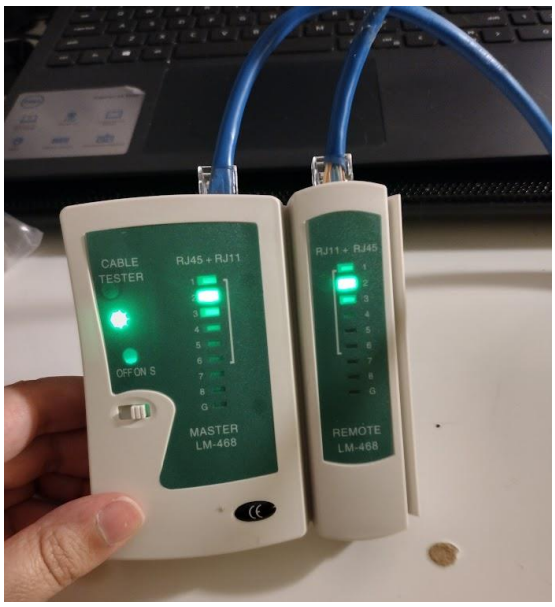


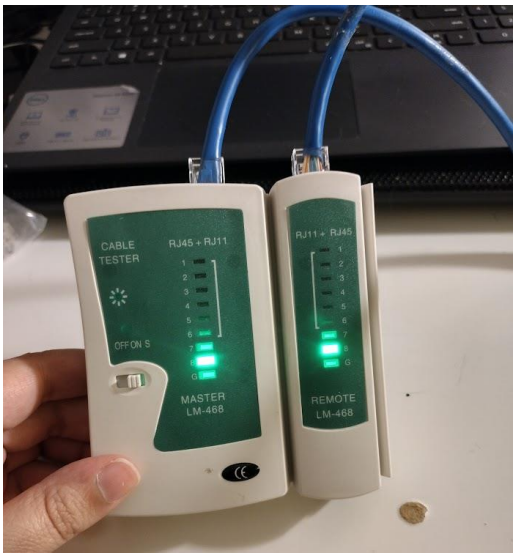
I then ordered the cables in the 568B color code order, implemented the connector, and repeated the process on the other side.





The pictures below show what occurred when I inserted both connectors into the cable tester.





The cable seems to have terminated correctly as all labeled sections lit up.

Conclusion

This lab was on building a 3-foot cat 5 “straight through cable” that uses the T568B color code. This involved following the correct procedures that would allow me to successfully build and terminate this type of cable. While going through this processes, I have encountered some setbacks such as having trouble stripping back the cable jacket on the first few attempts. However, I was eventually able to successfully complete the lab and terminate the cable. From completing this lab, I have learned how to build this type of cable while also learning how to use the specific tools involved.

Resources

The resources I used to complete the lab are the LinkedIn videos “Terminating twisted pair” from Joe Ramm and Mike Meyers’ CompTIA Network+ course and “Terminating a Cat 5 Ethernet cable” from Greg Sowell’s Networking Foundations course. Both these videos show how to build a straight through cable by including what tools and materials are needed and demonstrating how to use them to complete this task. They were both very helpful videos that helped ensured I was doing the steps correctly while also providing me with additional information on where and how these cables are used. The links of both videos are shown below.

Terminating Twisted Pair

Terminating a Cat 5 Ethernet cable