

How to crimp network cables

[0m:0s]



[0m:4s] Hi I'm Josh Bloom, welcome to another video in the RSP Supply education series. If you find that these videos are helpful to you, it certainly helps us out if you could give us a big thumbs up and subscribe to our channel

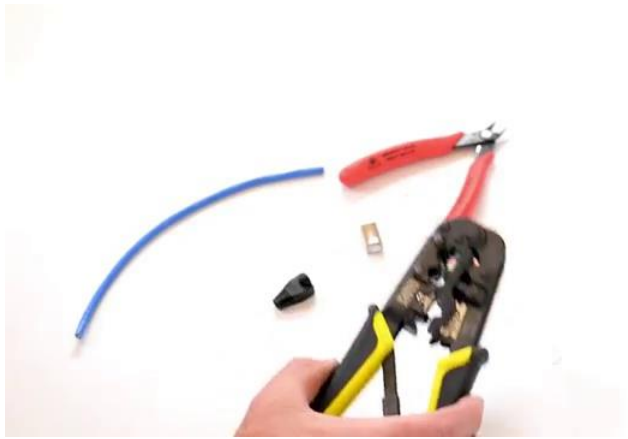
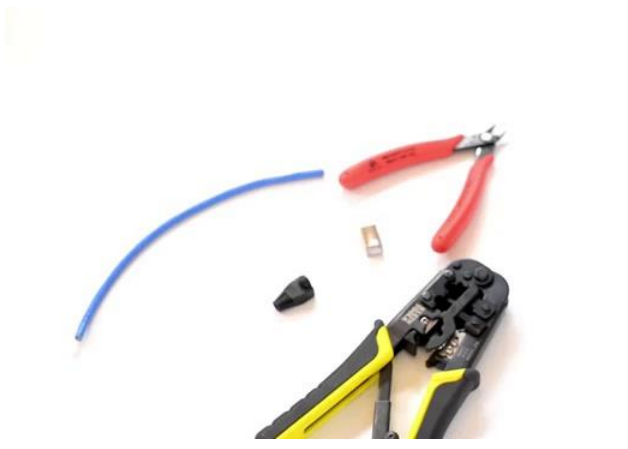
[0m:16s] In today's video, we are going to talk about network cables. More specifically, I want to talk about how to crimp one of the most common types of network cables that we see today. CAT5 or CAT6 cables using an RJ 45 style connector.

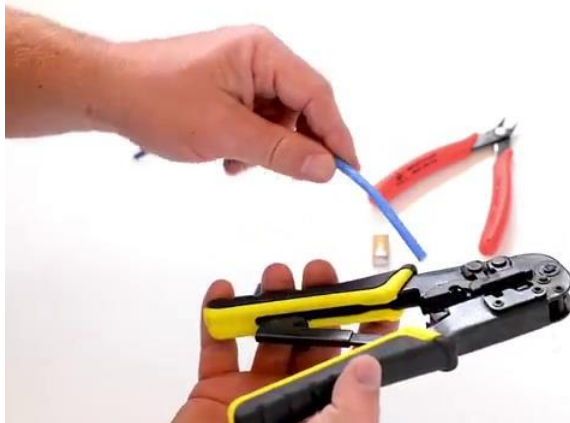
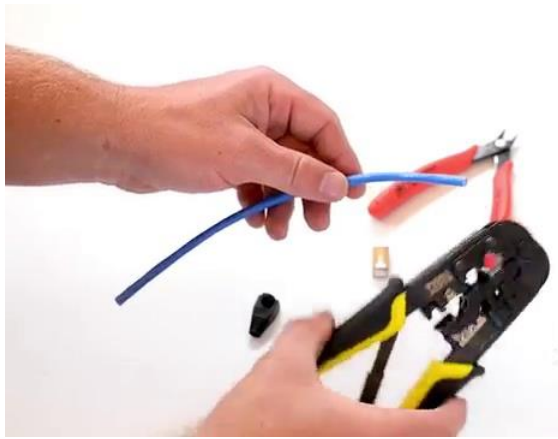
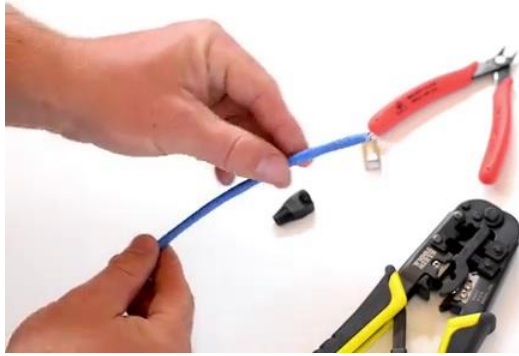
[0m:34s] It is important to understand that these types of cables can be purchased with connectors already attached on the cable in almost any length.

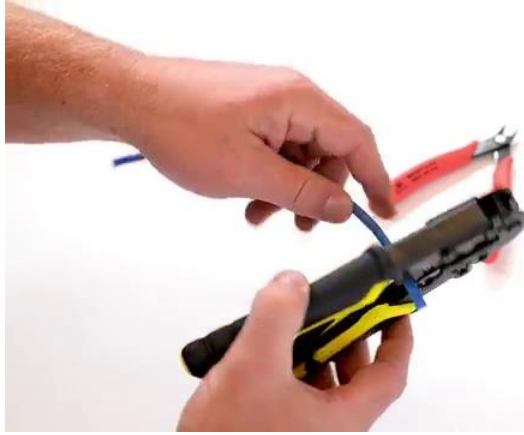
[0m:44s] However, in many cases, it is more convenient to crimp your own connections, especially when you are doing multiple networking cable runs all in different cable lengths.

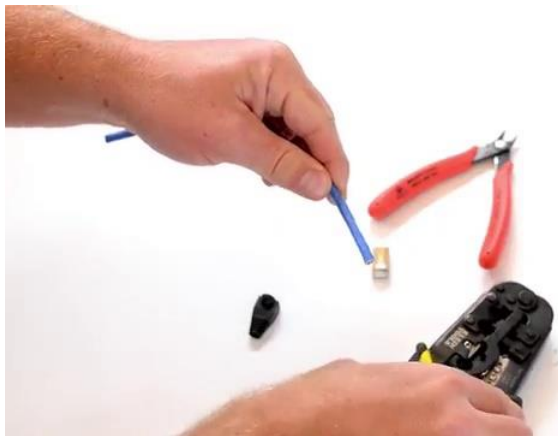
[0m:57s] Performing this task is very simple if a few steps are followed.

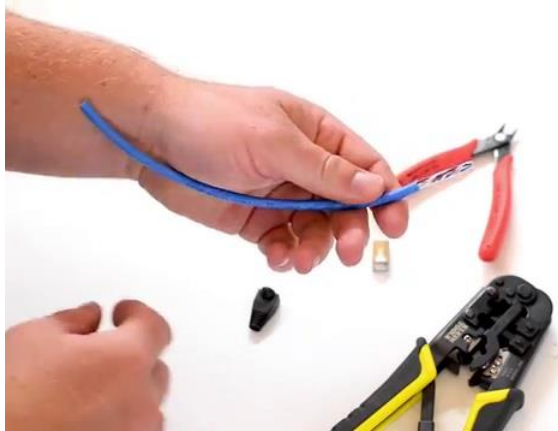
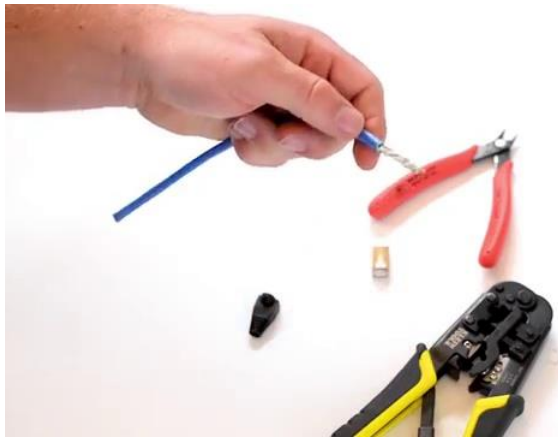
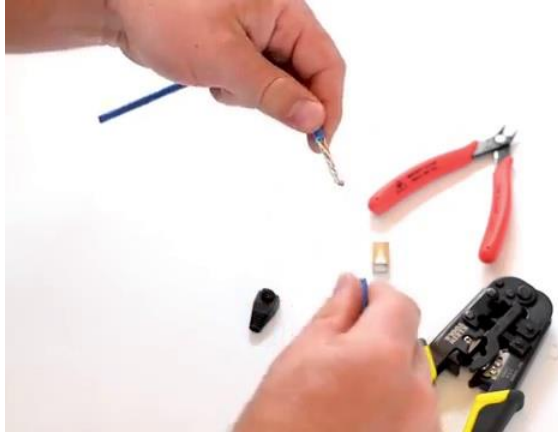
[1m:3s] Once you have made this type of connection a few times, you will feel much more confident in knowing that it was made correctly and will function as you expect, so the first steps are to identify which tools we need to use when we were actually crimping network cables. You can see here, I have a crimper, I have a wire cutter, we obviously need to use whatever network cable we decide on which is CAT5, CAT6, CAT5E, we have a boot and we actually have the RJ 45 connector. The first thing we need to do is actually strip the insulating jacket off of our network cable. In this case, the crimper that we are using has the ability to strip this jacket so you can see here we're going to twist that jacket off taking care not to cut too deep that we're actually cutting the individual wire pairs past that jacket. Once I have that jacket stripped, there is a pole string in this particular network cable, which is very common in a lot of network cable. So I'm going to go ahead and cut that.

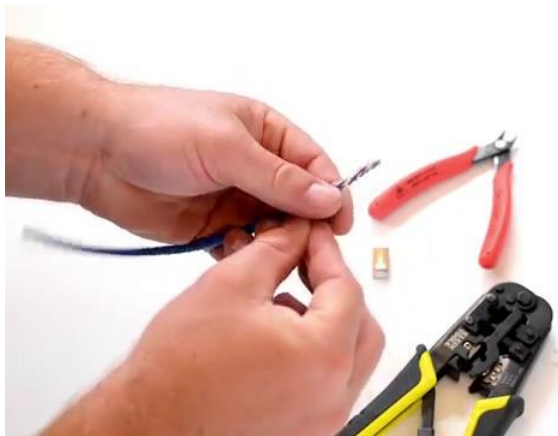
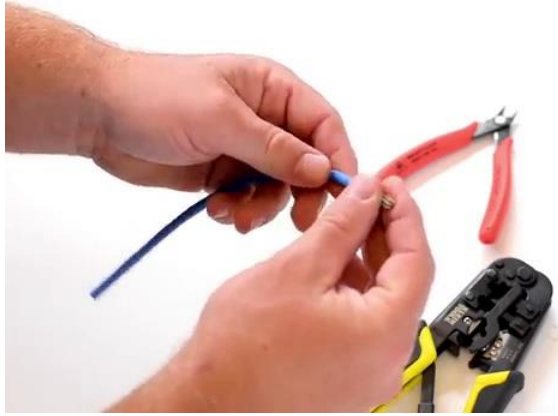






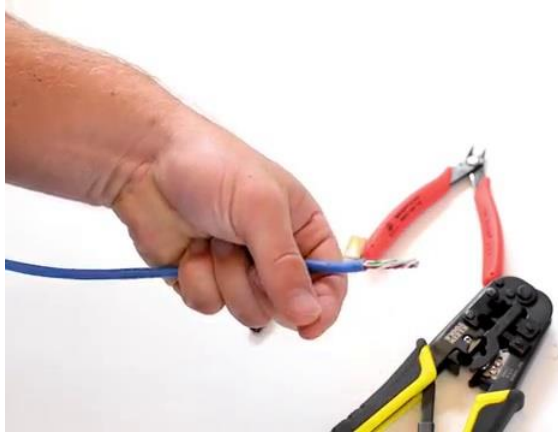
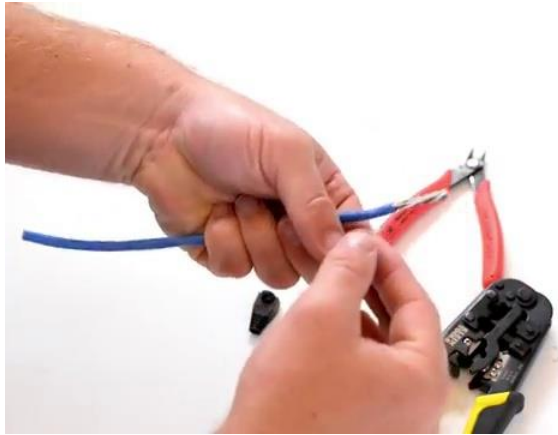




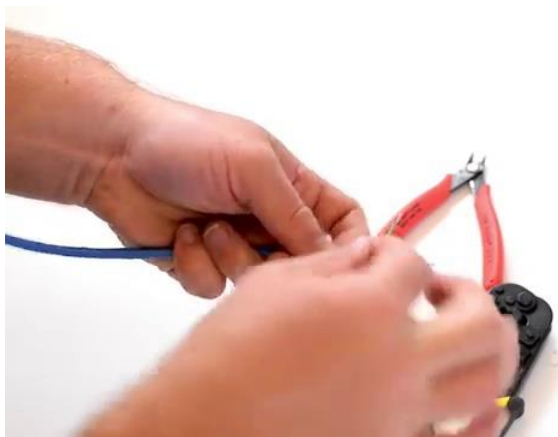


[2m:0s] Once I have that PullString cut I'm going to start separating the individual pairs of wire within the network cable.

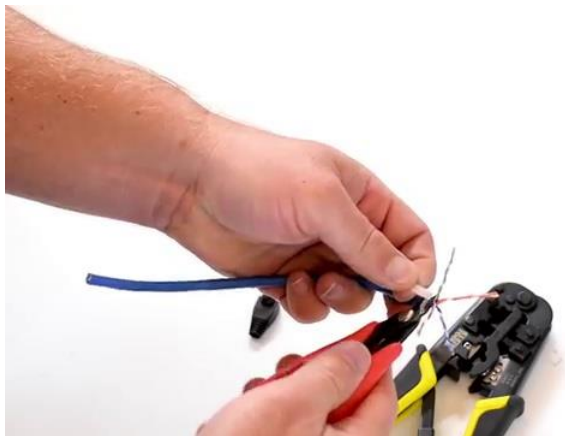
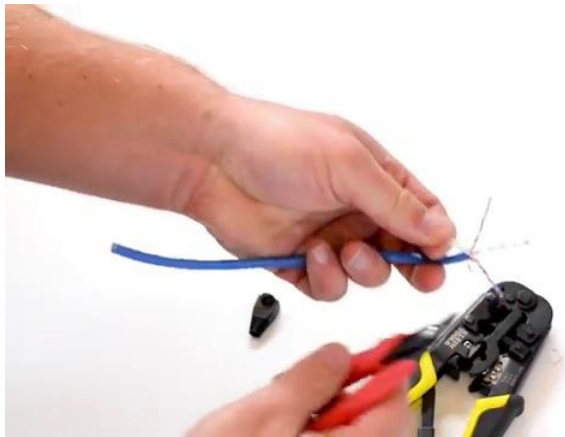
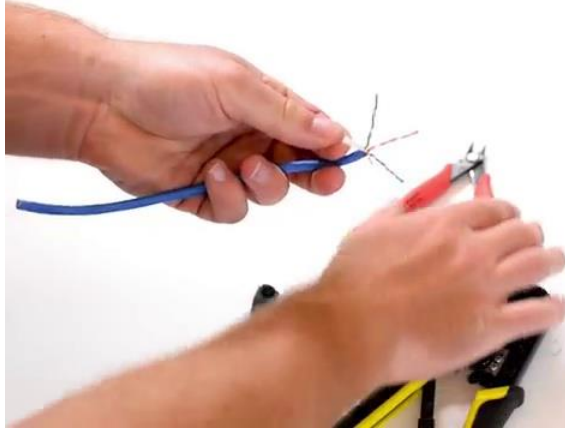


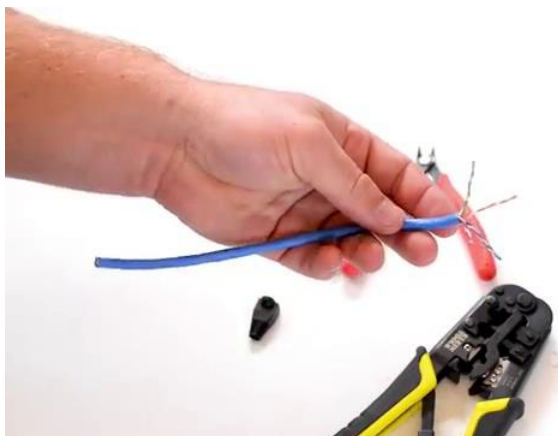
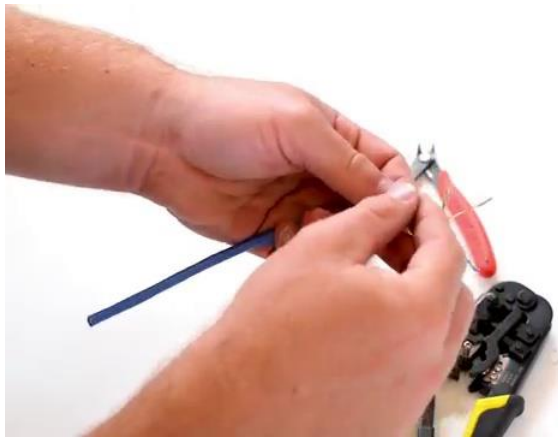
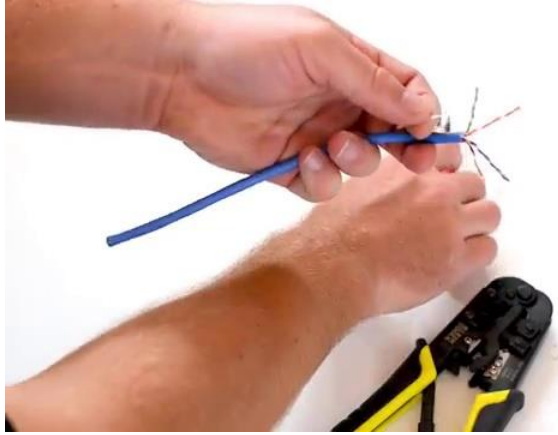


[2m:7s] At this point you're going to expose another piece of material. Typically, you only see this type of material in a CAT6 cable. I'm gonna go ahead and cut that.

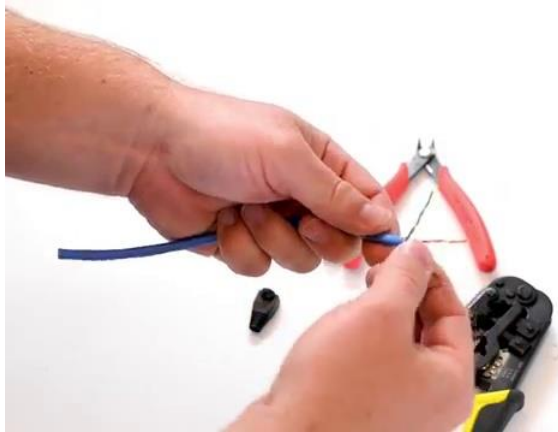
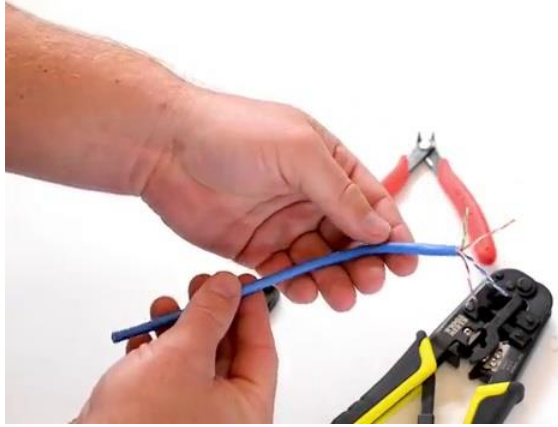


[2m:16s] And at this point, you can see I've exposed the four different pairs of wires within this network cable.

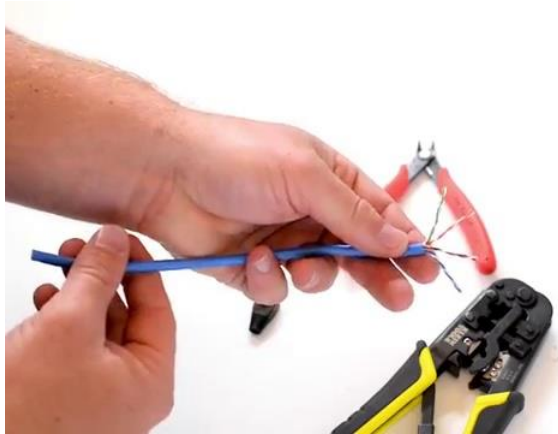


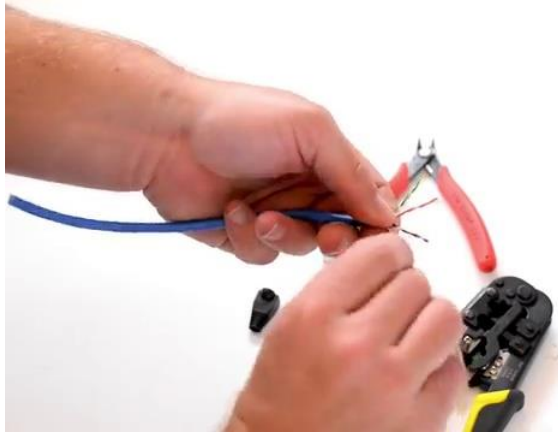
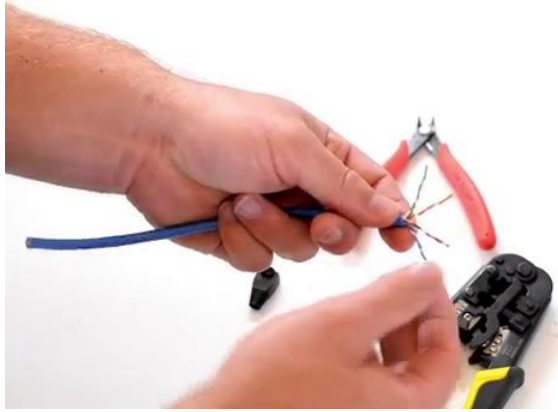


[2m:23s] So, now I'm going to start untwisting each of these pairs.



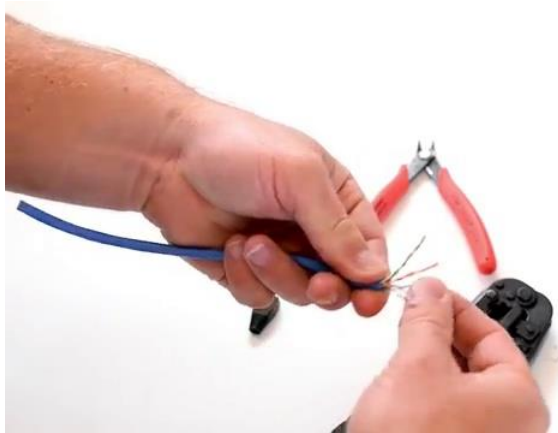
[2m:28s] Now, while I'm untwisting these pairs I'm gonna start to look at the order





[2m:33s] of the wires

[2m:35s] as I untwist them. When you are crimping any kind of network cable, the order of the wire is very, very critical.

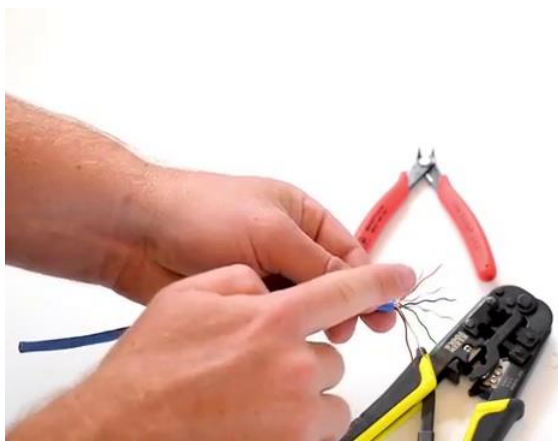


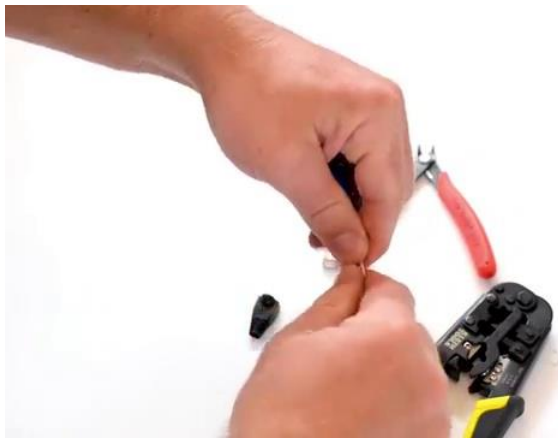
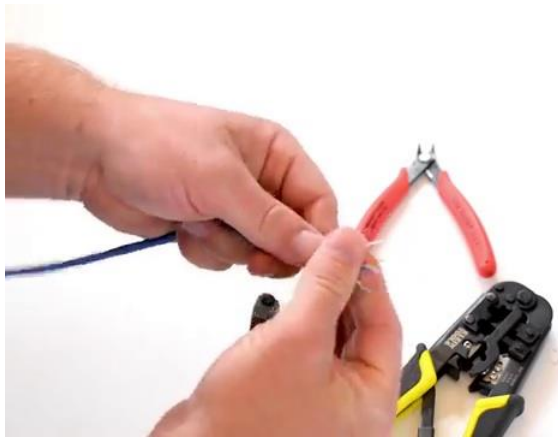
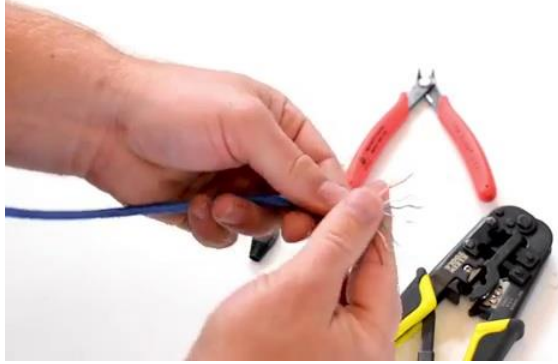
[2m:43s] The order is, in order of color, is orange, white, orange,

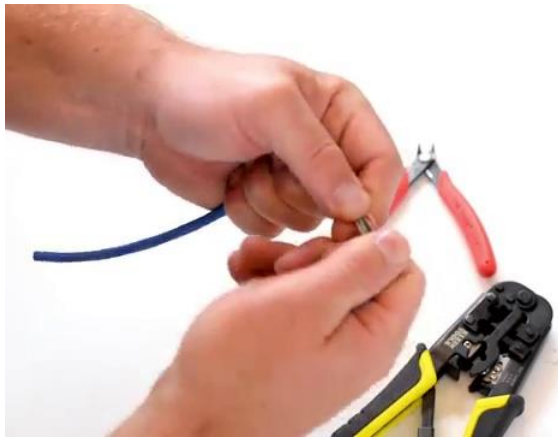
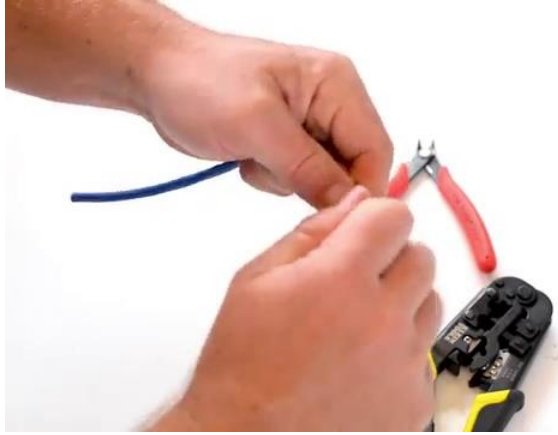
[2m:47s] green, white, blue, blue, white, green, brown, white, brown. Now that's not the only order you can do. That is the most common order that you will see for networking cables. There are other ways that you can order your cable, but that is the way typically that is used in most network cables. So you can see here I'm verifying the order of these cables now that I've got them all untwisted,



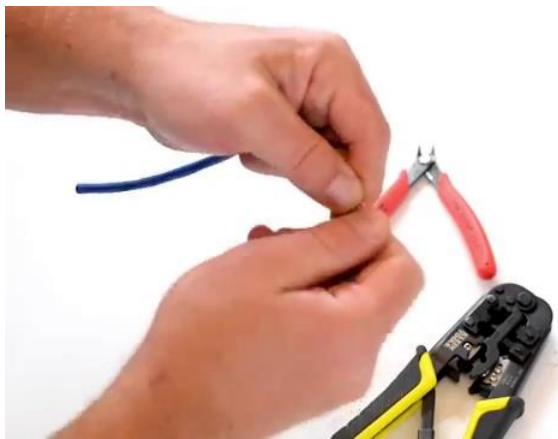
[3m:12s] and at this point I'm gonna start straightening these wires out and making sure the order stays consistent. The reason I'm doing this is I have to prepare these wires to go into our RJ 45 connector.



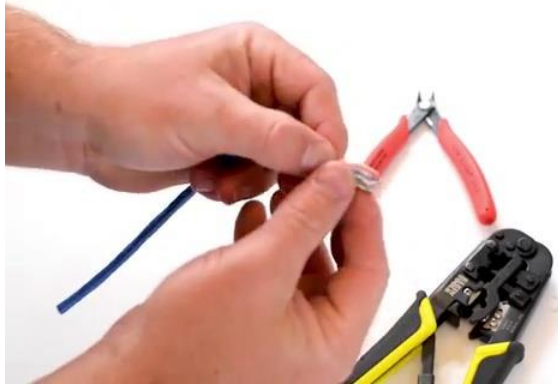




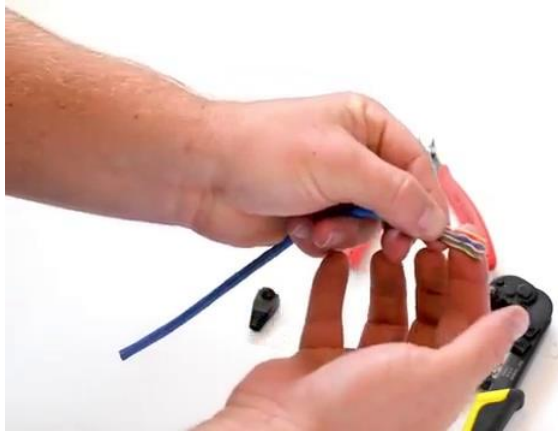
[3m:26s] You can see here I've verified that my order is correct and the wires have been straightened out quite a bit. So, I'm going to take my wire cutter



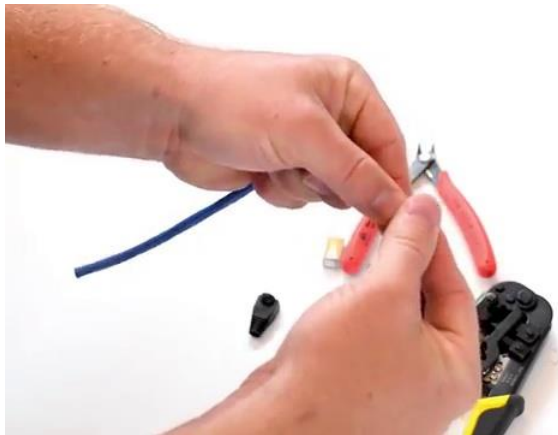
[3m:33s] I'm gonna go ahead and snip that wire,



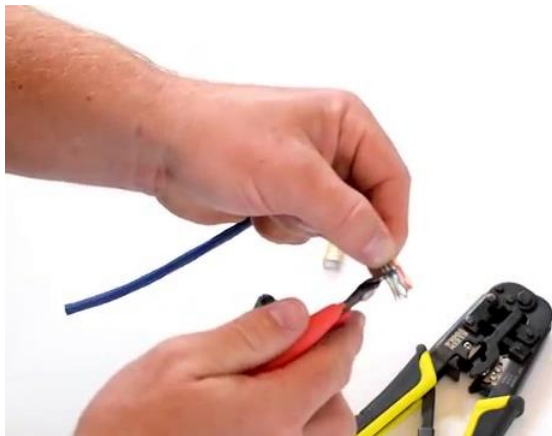
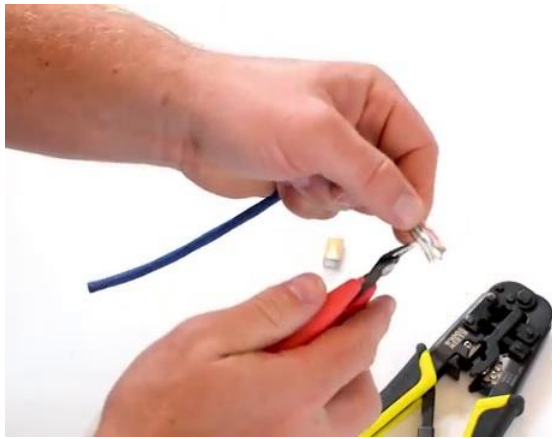
[3m:35s] and that gives me a very nice, clean connection



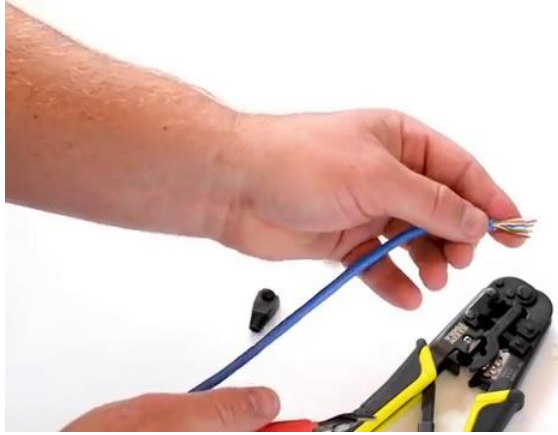
[3m:39s] to actually



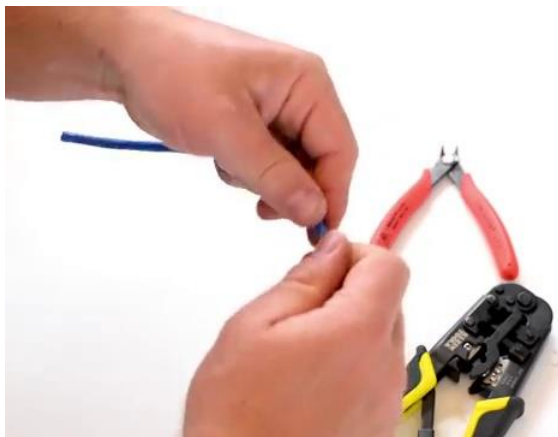
[3m:40s] move into the RJ 45 connection portion.

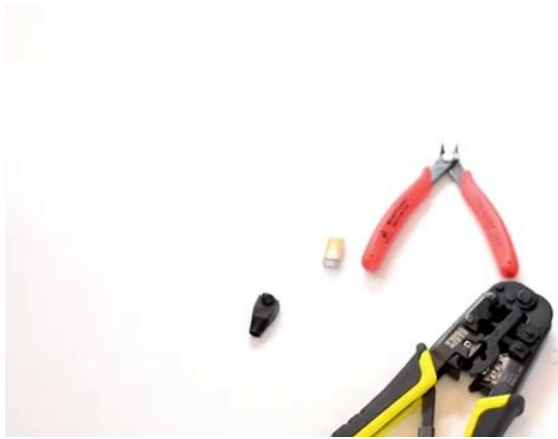
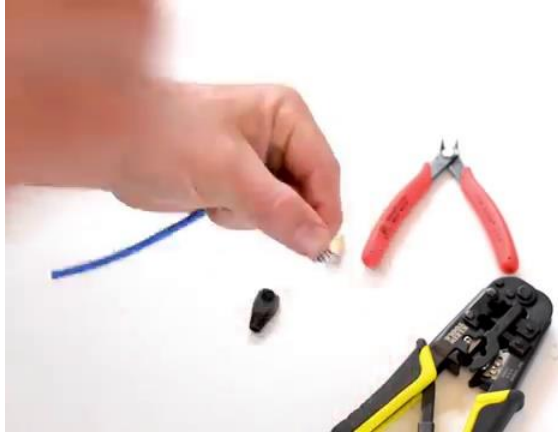


[3m:43s] So once we have cut our network cables, and we have a nice clean edge, and we have made sure that the boot is actually on the cable,



[3m:49s] you can see here I've got that nice clean edge, and the order of my conductors is correct. I'm gonna take my RJ 45 connector, I'm going to very carefully slide in

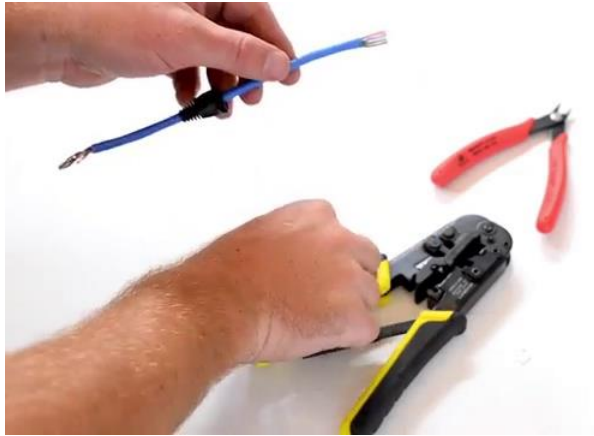


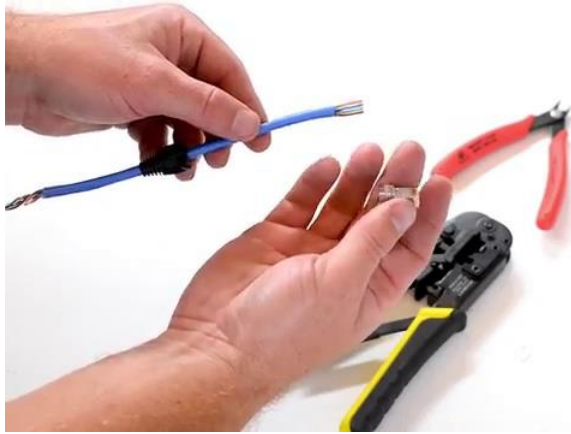
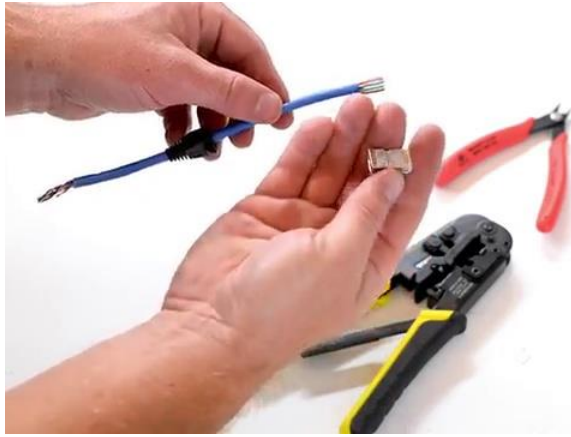




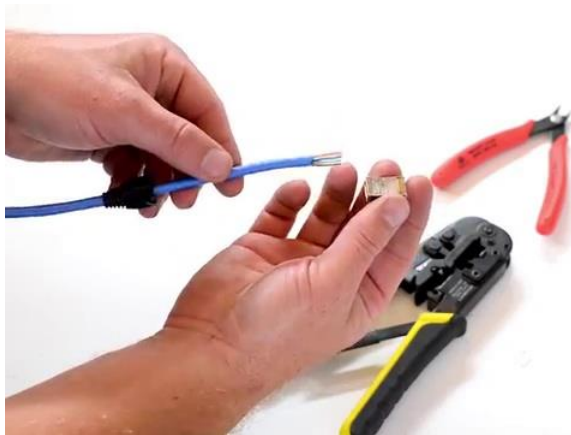
[4m:1s] my cable,

[4m:2s] making sure that the gold pins are faced up and the orange conductors are on the left side.

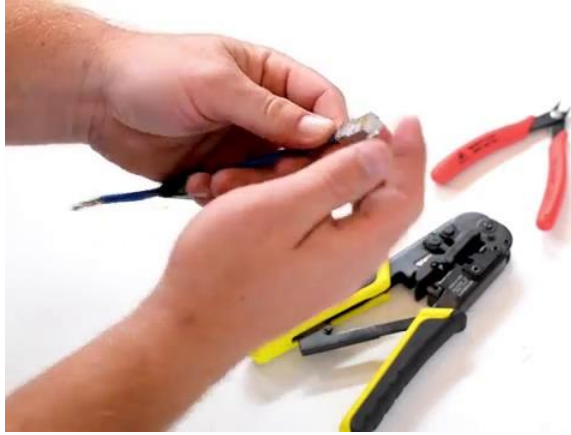




[4m:9s] I'm going to then take my crimper which is designed for an eight pin RJ 45 crimp, I'm going to place my RJ 45 connector in making sure that the wire is firmly pushed,







[4m:19s] and then I'm going to crimp firmly down,



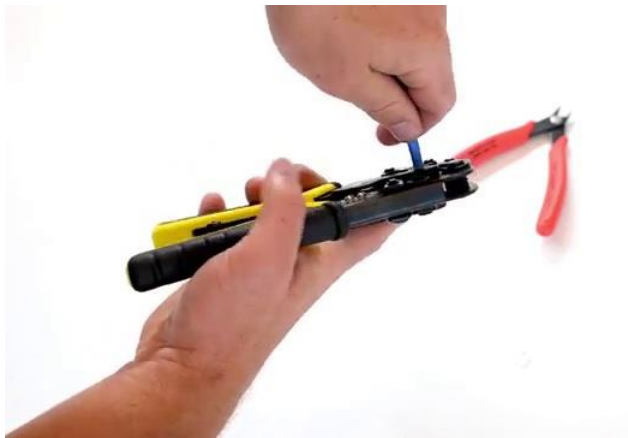
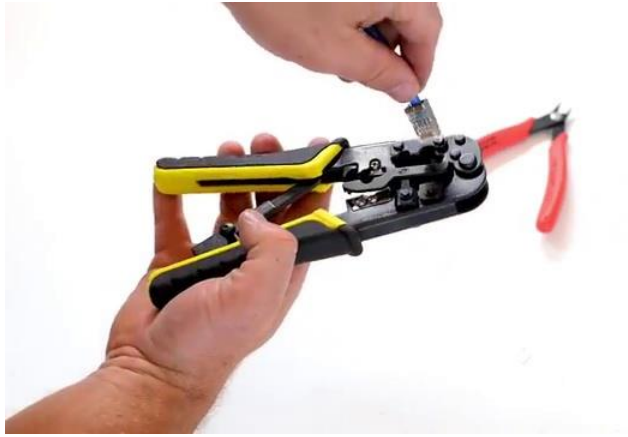
[4m:21s] making sure that I get a nice solid cramp on that connector.





[4m:25s] I'm going to go ahead and do a pull test to make sure that I've had a solid connection. I'm going to make sure that I can see all the individual wires coming at the very top of that connector making sure that I have good connection.







[4m:36s] Then I'm gonna go ahead and take my boot

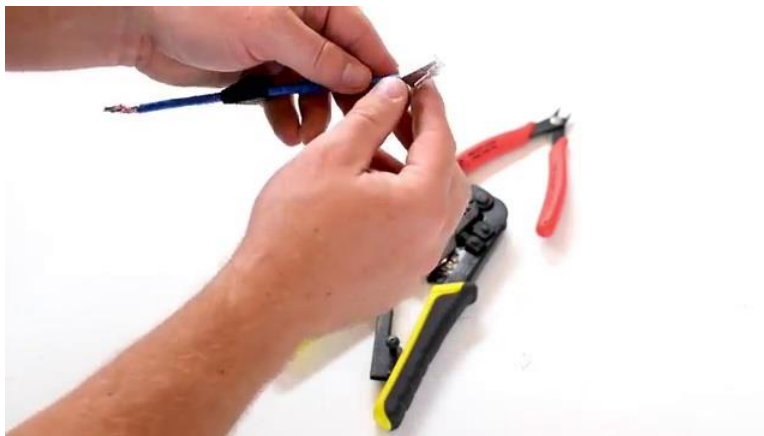


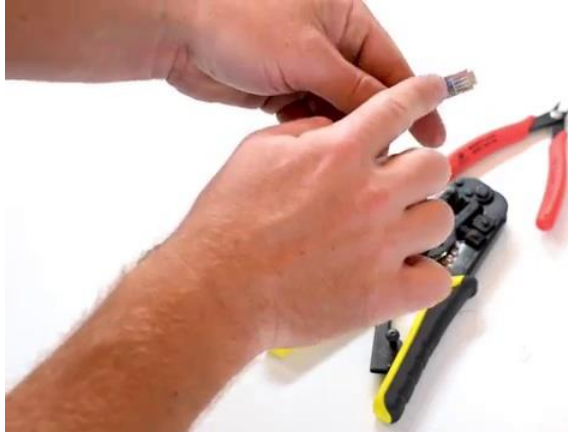
[4m:38s] nd push that over the connector.



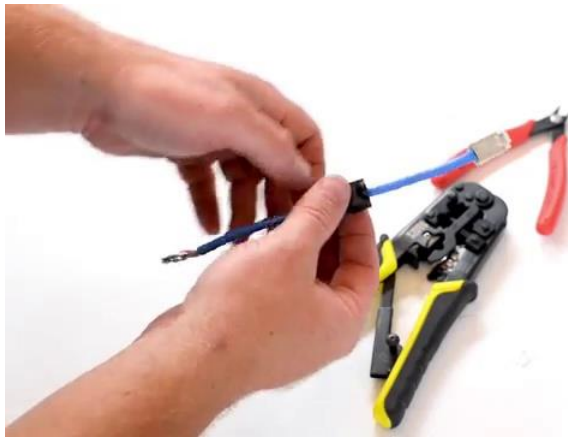


[4m:40s] This just helps protect that RJ 45 connection. At that point, you have made us successful a network RJ 45 crimp, that's eight pins,



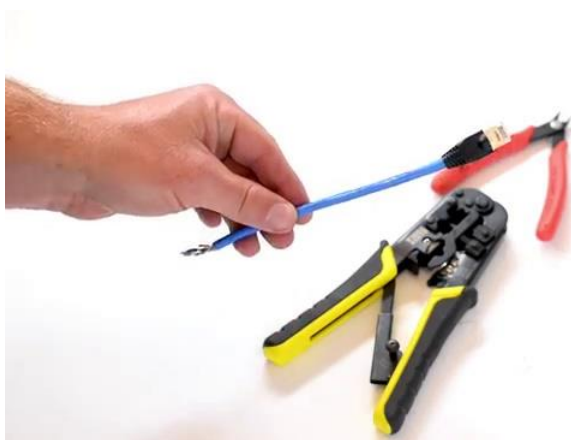


[4m:49s] and at this point, you would move on to testing of the of the connection.





[4m:54s] Once you are confident the connection has been made correctly it is a good idea to test the cable to ensure that it will function as expected. to assist in performing this type of test, it is recommended that you use an RJ 45 compatible eight pin cable tester.



[5m:12s] This type of tester will ensure that each pin has been crimped into to the proper location. If an error has been made, you will be aware of which pins are out of place or are not making a proper connection at all.

[5m:25s] It may be necessary to cut the connector off and re crimp a new connector in its place in some cases.

[5m:33s] Learning this skill can be very easy and doesn't require much time. With a little practice, you will be very confident in knowing that all of your connections have been made correctly and will function without fail for a long time to come.

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