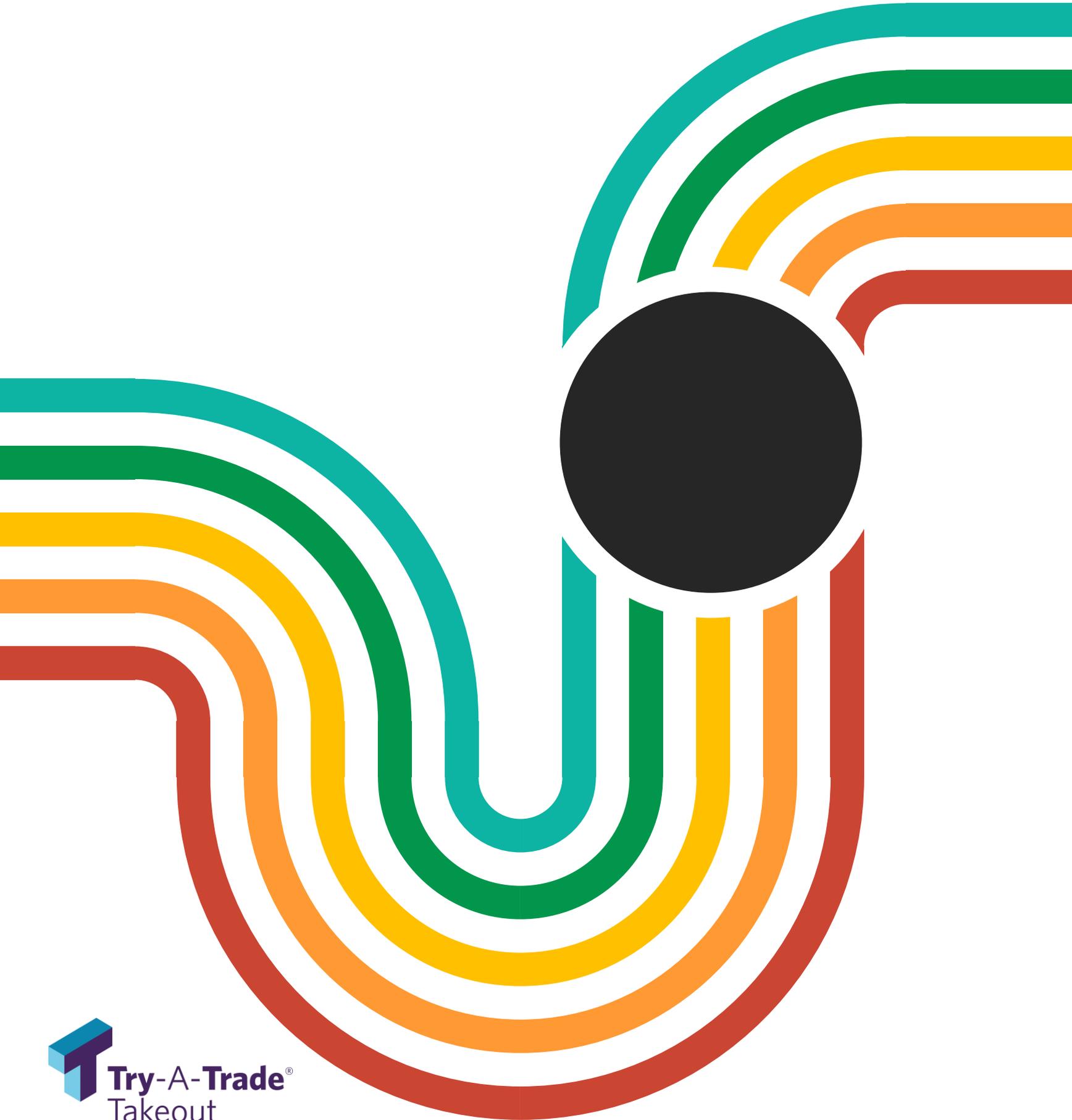


Connector Loop

Heavy Equipment Technology



Connector Loop

- Provided materials:**
- | | |
|------------------------------------|------------------------------|
| 1. Pliers | 7. Plug housing & wedge lock |
| 2. Wire strippers | 8. Identification tag |
| 3. Crimp tool | 9. Sockets |
| 4. 18 Gauge wire | 10. Pins |
| 5. Safety glasses | |
| 6. Receptacle housing & wedge lock | |

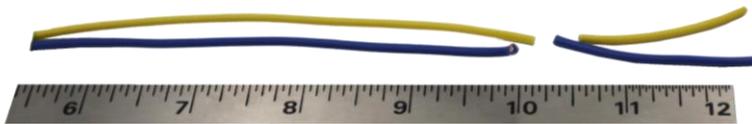


Safety First.

Before you begin, put on your safety glasses.

Assembly

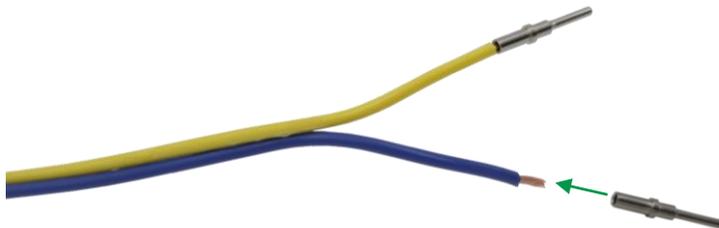
1. Cut two 8" lengths of wire from different colours.



2. Using the slot marked "AWG 18" on the Wire Strippers, remove ~1/4" of insulation from one end of each length of wire.



3. Place two pins over the stripped ends.

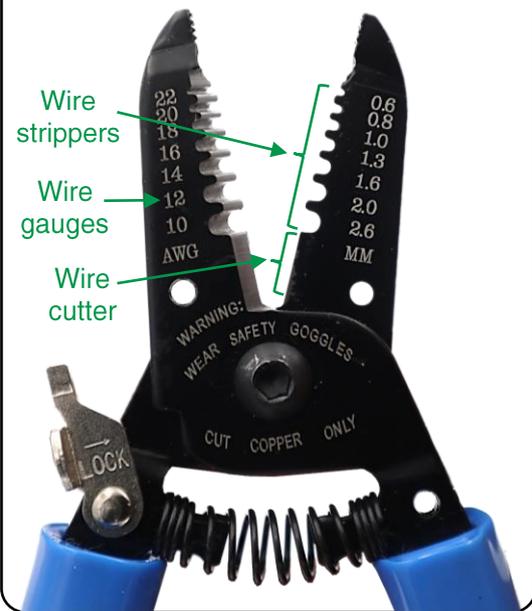


4. Insert the pin & wire into the crimp tool and squeeze firmly. The tool should ratchet closed and will release when the crimp action is complete.



Wire Cutters & Strippers

To "strip" wire means to remove a section of the non-conductive insulation to expose the bare metal. This is done by placing the insulated wire in the appropriate slot, squeezing the tool closed on the wire, and pulling off the freed section of insulation.



5. Repeat steps 2-4 on the other end of the lengths of wire to crimp on the sockets. The completed crimps should match the images below.



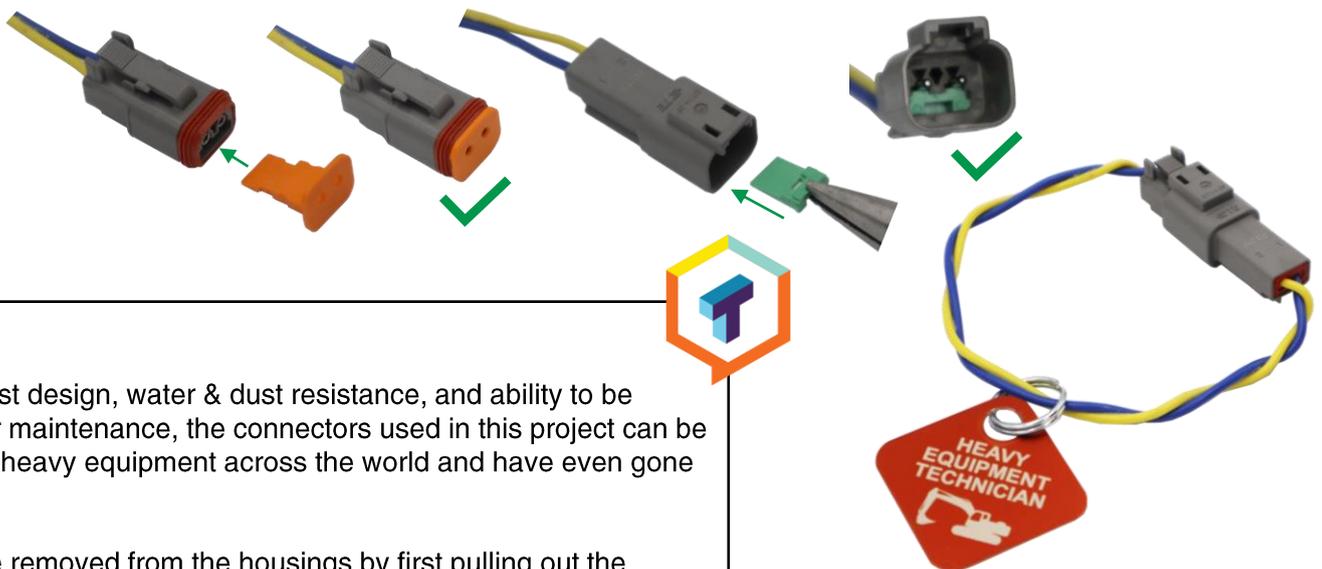
6. After crimping the pins & sockets on, twist the pair of wires and pass them through the provided tag.



7. Insert the pair of pins through the seal on the rear of the receptacle housing until they “click” into place. It may be necessary to use the thin pliers to pull them through from the front. Test that both are securely locked in by tugging on each wire. Using the same process, insert the sockets into the plug housing.



8. Finally, insert the wedge locks as shown. Use the provided pliers to insert the green wedge lock into the receptacle housing. Connect the ends to form a loop that can be used as both a fashion accessory and a key organizer, among other things.



Did you know?

Due to their robust design, water & dust resistance, and ability to be disassembled for maintenance, the connectors used in this project can be found on offroad heavy equipment across the world and have even gone to space!

The wires can be removed from the housings by first pulling out the wedge locks, then using a small screwdriver or a specialized sleeve tool to depress the latches under each pin or socket.

Find PDF versions of these instructions at:
skillsalberta.com/resources/try-a-trade-take-out

Try-A-Trade® Takeout Program

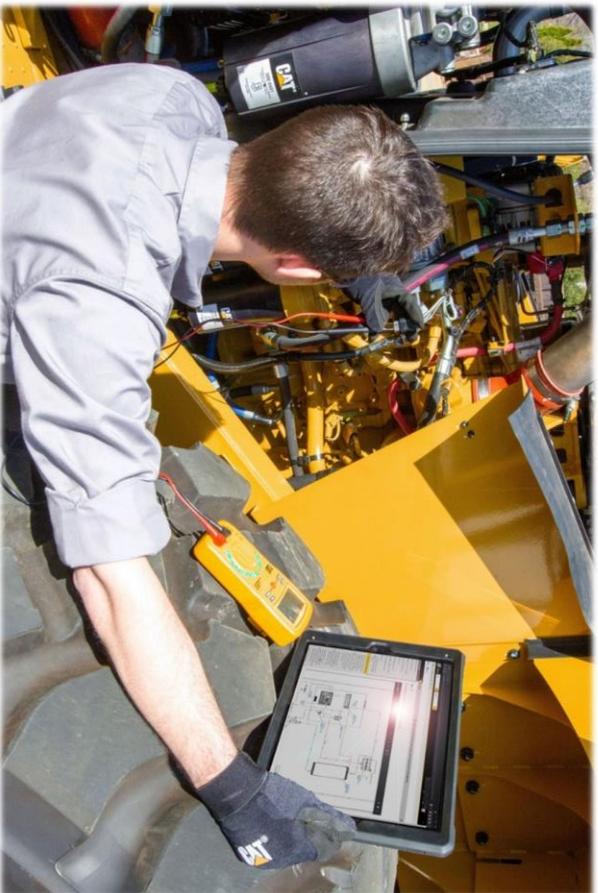
Activity: Connector loop	V5
Skill Area: Heavy Vehicle Technology	
CTS Cluster: TMT	

Connector Loop

Heavy Equipment Technology

Project

Students assemble a useful accessory using wire, heavy-duty electrical connectors, and crimping tools.



Schooling

- Four-year apprenticeship, or two-year full-time schooling.
- Start early with the Registered Apprenticeship Program (RAP) or explore options available through Career and Technology Studies (CTS).

Jobs

- Heavy Equipment Technician
- HET Mechanic (off-road), Transport Trailer Mechanic, Truck & Transport Mechanic
- Diagnose, service, & maintain heavy equipment.
- Average salary: \$73,818.00 year
- Average wage: \$35.13/hour

More information:

Or visit:

alis.alberta.ca



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