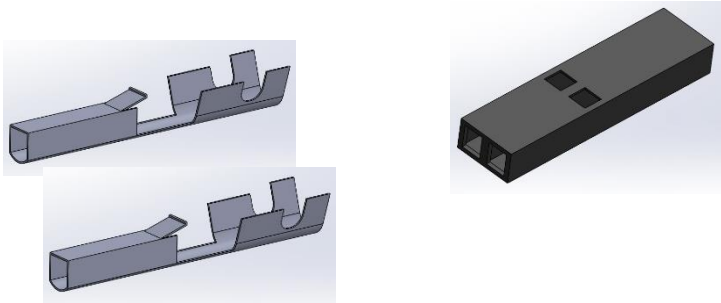


Engineering³ - Wire Work/LEGO Motors

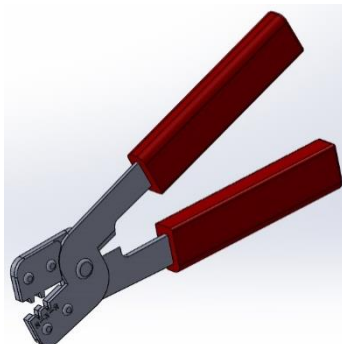
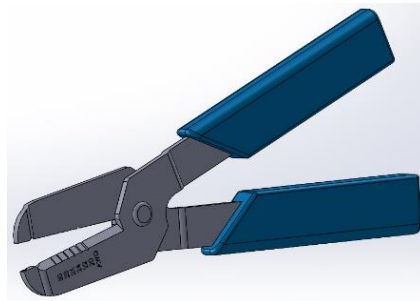
Parts

Molex Connectors and Hoods (used for LEGO Motors, Servo Motors, Sensors and other components to connect to Controllers)



Tools

Nipper, Stripper (22 – 30 AWG), Crimper (Molex)

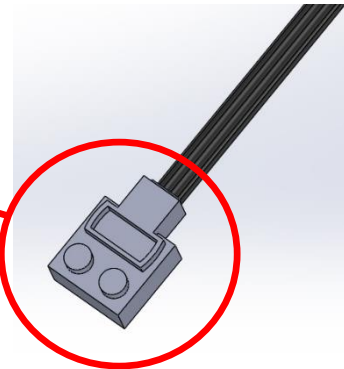


Replacing the Connectors on the LEGO Motors

Remove LEGO Motor Connector

Cut off the existing connector leaving as much wire still attached to the motor as possible.

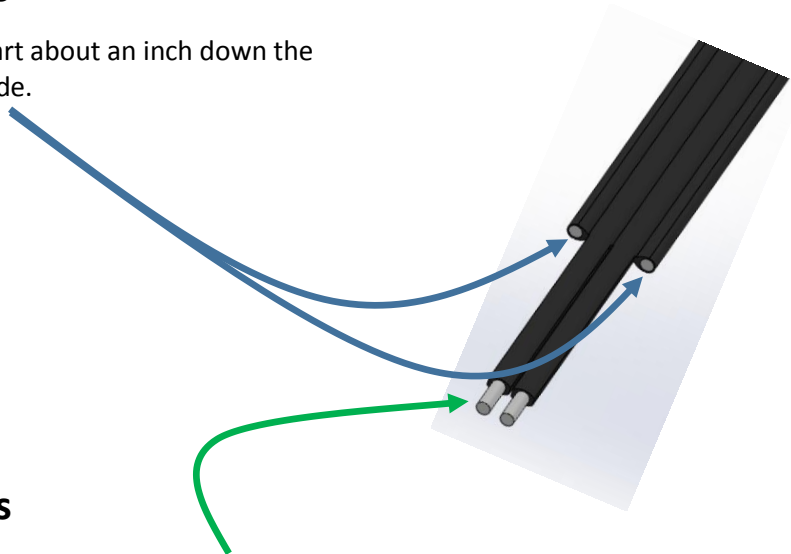
* Note the wire is a 4-lead flat cable



Trim the LEGO Motor Wires

Use the Nipper to split ALL the wires apart about an inch down the cable. Trim off the outer wire on each side.

* Be careful not to penetrate the sides of the insulating layer. If you do you will need to trim below the breach and start again.



Strip the LEGO Motor Wires

Follow the instructions in the **E3 Stripping Wire** document and use the Stripper to strip the inner two wires of the LEGO Motor Wires about 1/16 of an inch.

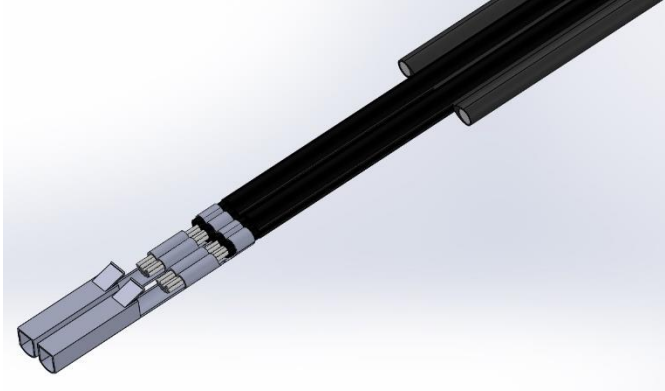
* With LEGO motors use the 22 AWG position on the stripper (blue handled) to start. If you need to trim more you will need to move to the 26 AWG.

THE EXPOSED CONDUCTIVE WIRES ON THE TRIMMED SIDE WIRES WILL TEND TO STAB USERS. COVERING THESE WITH HEAT SHRINK IS A GOOD IDEA (and can be done after the contacts and hoods are attached using **3/8" size heat shrink tubing).**

*** 3/8" is a guess until I can order some heat shrink and test which is the best fit.**

Crimp the Molex Connectors onto the LEGO Motor Wires

Follow the instructions in the **E3 Crimping Molex Connectors** document and use the Crimper to attach the Molex Crimp Connectors onto the LEGO Motor wires (one per wire/two total for each LEGO motor).



Install the Molex Hoods onto the LEGO Motor Wires

Follow the instructions in the **E3 Crimping Molex Connectors** document and add the Molex hoods to the LEGO Motor wires.

