Gears Educational Systems, LLC

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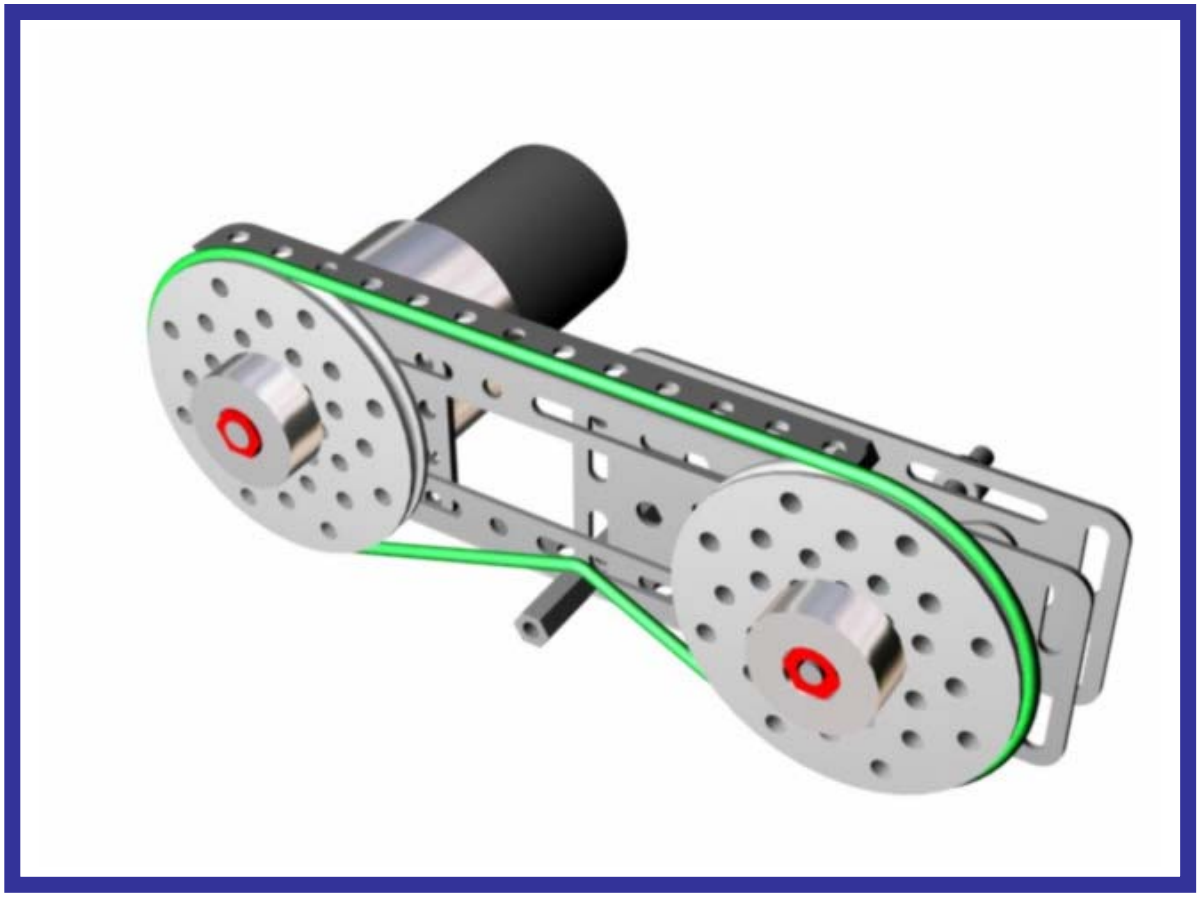
How to Use the Green Polycord Belting



The 1/8” green Polycord round belting material supplied with the GEARS-IDS Kit is a versatile product that can be used to easily and quickly make tires and drive belts of any size or length.

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Polycord is a green synthetic belting of homogeneous structure with high elasticity and flexibility. Endless belts, without noticeable joints, can be made quickly and easily. These belts will ensure quiet, smooth and uniform power transmission over "V" or grooved pulleys and wheels.

This urethane belting material is used with an initial tension of 8%. This tension remains constant during operation and eliminates the need for drive train take-up adjustments or idler pulleys.

Making Tires and Belts

1. Measure the total distance over the pulley(s). *Measure at the bottom of the groove or "V".*
2. Deduct 8% from the measured length and cut the ends square. *Note: Take care to make square end cuts.*
3. Simultaneously heat belt ends to the melting point. This can be done by holding both ends in contact with a hot plate, or by holding both ends near an open torch flame. Be cautious using an open flame. The polycord melts easily and quickly. *Caution: Hold the cord close to the open flame but not directly in the flame.*
4. Immediately after the ends reach the melting point, join the ends by pressing them together and holding them for 1 minute. A preferred way to align the joined ends is by using a "L" shaped steel or metal angle extrusion. Using the "V" section of the angle extrusion, press the two melted ends together.
5. After 5 minutes of cooling, carefully trim the excess flash using a razor knife or by rolling the belt over a grinding wheel. Perform the trimming operation in the presence of a supervising adult. The joint attains maximum strength after 30 minutes but can be used after 5 minutes when necessary.