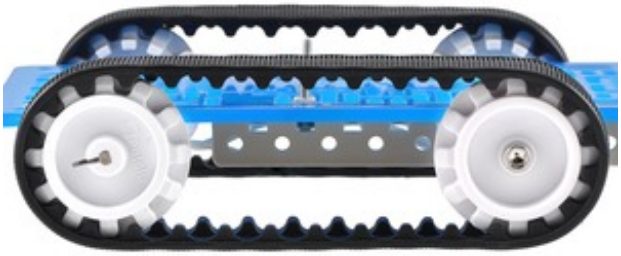
Pololu 22T Track Set

Overview

Pololu 22T track set mounted on a chassis.



Pololu 30T track set mounted on a chassis.

This set contains components that are great for adding a tracked drive system to a small robot or vehicle. It consists of:

- **Two silicone tracks**
- **Two drive sprockets**
- **Two idler sprockets**
- **Two shoulder bolts, washers, and M3 nuts**

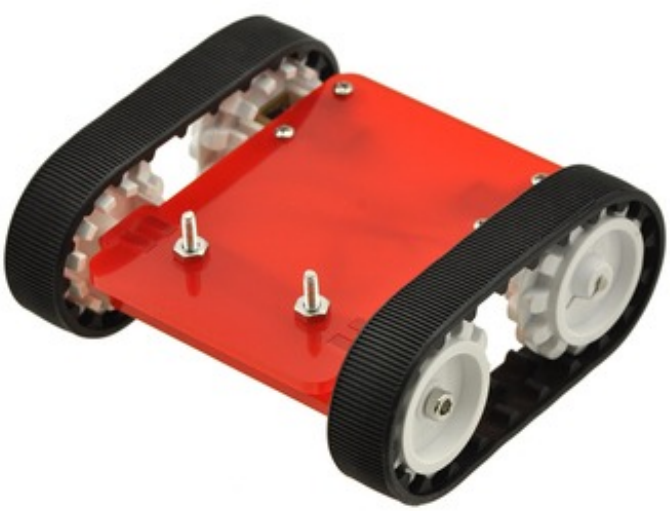
The flexible one-piece silicone tracks are available in two lengths, with either 22 teeth or 30 teeth that are designed to mesh with the drive and idler sprockets. The 22T set, with an overall length under 90 mm, is short enough to be used as the drive system for a mini-sumo robot (for example, our Zumo chassis and Zumo Robot for Arduino).

The drive sprockets are designed to press-fit securely on the output shafts of our micro metal gearmotors and 15.5D mm metal gearmotors. These gearmotors are intended to be mounted onto the side of the hub with the protruding teeth. The output shaft will slide into the socket easily at first but will achieve a snug fit when pressed through to the other edge of the hub.

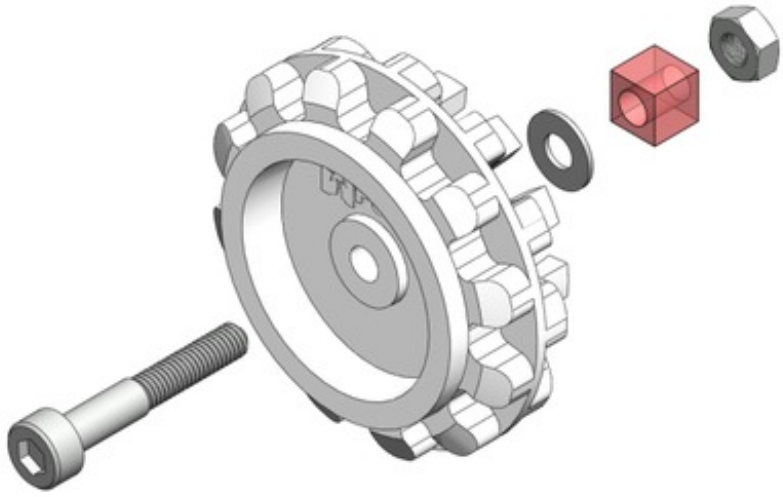
The output shafts on the Solarbotics metal gear motors will also fit these sprockets, but because they are shorter they will have to be mounted onto the other side of the sprocket where the fit is tighter. These sprockets will also work in this orientation on Pololu plastic gearmotors with 3mm D-shaft outputs.

Our extended micro metal gearmotor bracket is specifically designed to work with these hubs. Please note that the non-extended version of our mounting bracket (product #989) will not work well with these hubs.

Although the drive sprockets are identical to the hubs used in the Pololu 42×19mm wheels, they will not work reliably with the quadrature encoder associated with those wheels. The tracks do not block enough ambient light around the teeth of the sprocket, so the encoders will be unable to achieve a good contrast between black and white unless you take special measures to shield them.



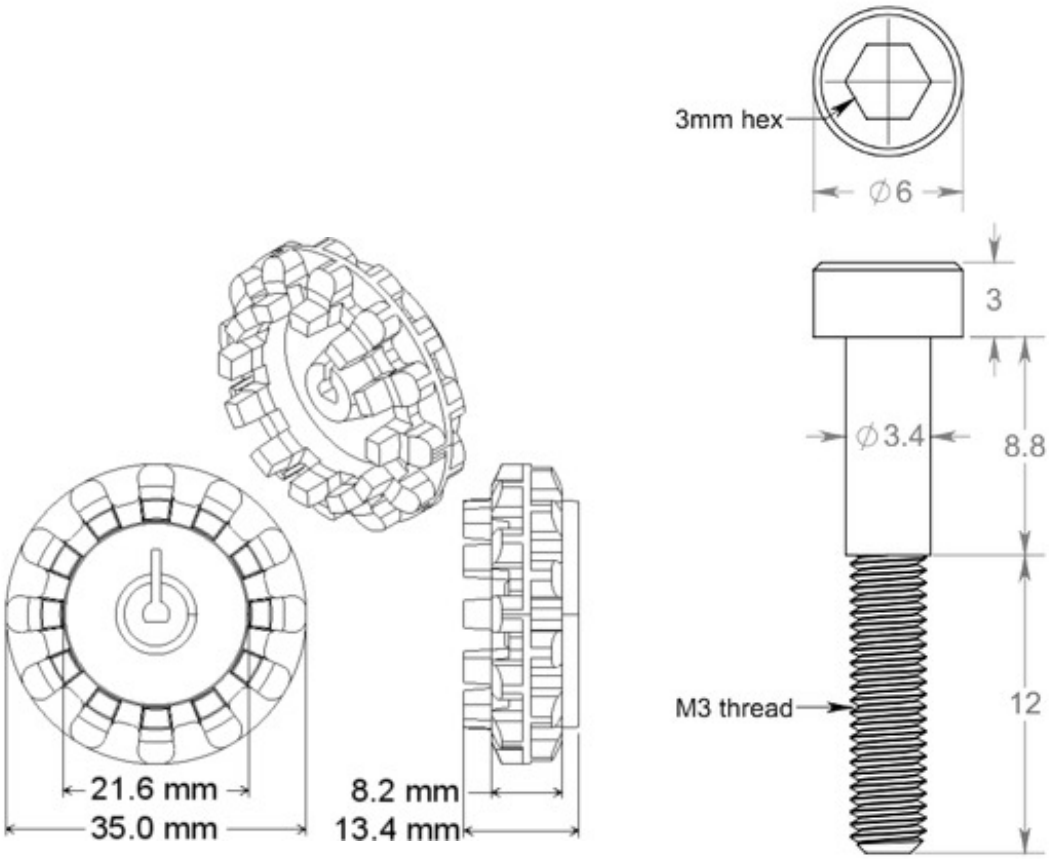
A pair of idler sprockets is also included in the set; these are identical to the drive sprockets, except that they are designed to spin freely instead of attaching to a motor shaft. They can be mounted with the provided shoulder bolts as shown in the diagram below. (The red block represents a bracket or chassis that the sprocket is being mounted to, and is not a part included in the set.) Our nylon spacers can be used to offset the sprockets from a flat mounting surface.



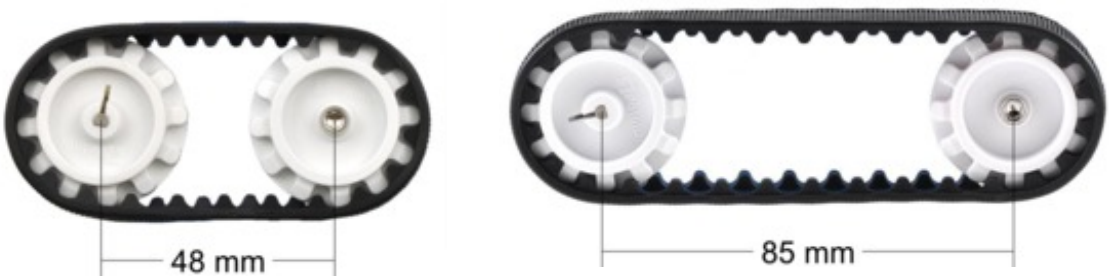
Dimensions

- **Sprocket diameter: 1.38" (35 mm)**
- **Diameter with track: approx. 1.54" (39 mm)**
- **Track width: 0.57" (14.6 mm)**

The diagrams below show the dimensions of the sprockets and the shoulder bolts included in this set. The threaded portion of the shoulder bolts can be cut to the desired length.



The ideal spacing between the centers of the two sprockets is about 48 mm for the 22T tracks and 85 mm for the 30T tracks. Because the tracks are elastic, they will maintain tension even if you do not precisely match this distance. However, if the spacing is too short, they will be loose and more likely to slip off; if the spacing is too long, additional strain will be placed on the sprocket shafts, and the motor might not be able to turn as well.



Documentation on producer website.