

## Build Your Own Drive Shaft!

Don't be afraid! It's only [metal](#). Shortening, lengthening and re-tubing your own drive shaft is not very hard, but you won't be able to balance the shaft at home. The methods shown in this article are geared towards trail Jeeps that rarely see pavement or trail repairs on any vehicle.



### The Basics

A drive shaft is just a piece of tubing with a yoke at each end to accept a U-joint or a CV joint. The yokes have a shoulder that is a press fit in the tubing to make assembly and alignment easier. The yokes also have a larger shoulder to act as a stop to prevent the tubing from being pressed on too far.

For the best performance and highest level of strength the shaft needs to be straight with the yokes properly aligned. The shaft should also be "in phase." When a shaft is in phase, the yokes at each end line up with each other. When the shaft is "out of phase," one of the yokes is twisted in relation to the other. To make a good drive shaft you need to build a shaft that is straight, has the yokes in phase, and uses appropriate material such as 2" by .120" wall DOM tubing.