
Subject: Triple gear

Posted by [henryseg](#) on Tue, 04 Dec 2012 07:03:30 GMT

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In this unusual mechanism three gears mesh together in pairs, and yet they can turn!

If you take three ordinary gears and put them together so that each gear meshes with the other two, then none of the gears can turn because neighbouring gears must turn in opposite directions. Triple gear avoids this problem by having the three "gears" arranged like linked rings - the gears then rotate along skew axes, and the opposite direction rule no longer applies (although see also Oskar van Deventer's Magic Gears for another possible solution).

This is joint work with Saul Schleimer. We were inspired by another of Oskar's designs, his Knotted Gear, which consists of two linked rings that gear with each other, and of course we wondered if it would be possible to do three linked rings!

Youtube video.

Shapeways shop.

File Attachments

1) [triple_gear_hand_650.jpg](#), downloaded 387 times
