# Vector Addition / The Force Table

Here is an overall view of the force table. The table is a metal disk with angle markings (from 0° to 359°). Four strings are connected to a weight on one end, and to a single ring near the center of the table. The strings pass over pulleys as seen here.


If the weights and pulley positions are chosen correctly, then the center ring will balance over the table without touching Anything other than the strings.

A top view of the table shows the angle markings more clearly. The pulleys are currently at 81°, 200°, 290°, and 337°. By convention, we think of 0° as the +x axis, and 90° as the +y axis.
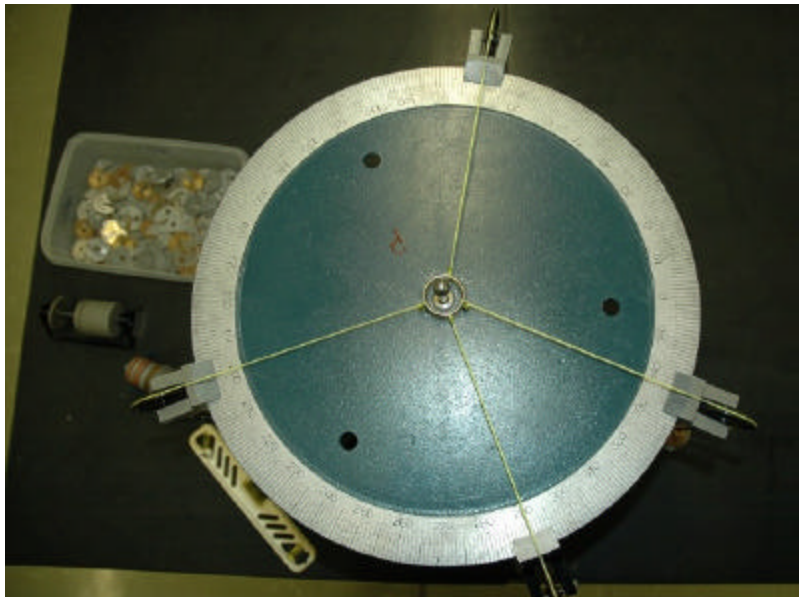
This ring is balanced: notice that it is centered, and that each string points directly towards the center of the ring.

Here is a close-up image of the balanced ring from the previous picture.
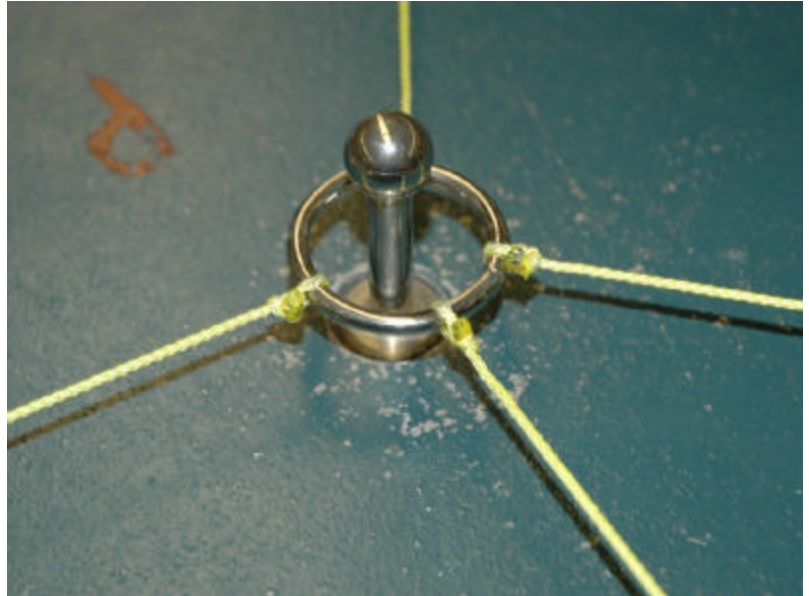
The strings are connected to a hangar that makes it easy to add or subtract weight. As you do your calculations, don't forget to include the mass of the hangars!

To move a pulley to a new angle, first loosen the thumbscrew as indicated here.