

What's that big black tub sitting in the little room on the starboard (right) side of the passageway to the bridge?

It's built on the simple concept of the classic gyroscope, shown above. It tells the crew up in the Bridge where TRUE NORTH is. It also provides this information in a display just to the left of the wheel (so the crew on the helm doesn't have to run down the stairs every time they want a heading). A magnetic compass (which of course shows Magnetic North) does not behave well in a large iron ship like ours. The reading would be thrown off by all the iron.

So, mariners had to come up with an alternative. One common solution was the Gyrocompass. Taking a long [Wikipedia page](#) of explanation and reducing it to a sentence or two, as the gyroscope inside the gyrocompass turns, the friction on the axis is measured. There is virtually no friction when the axis of the gyrocompass gyroscope is in line with the earth's rotational axis and that friction increases as the axis turns away from the earth's axis.

Throw in some math, cables, gears, plus pixie dust and that measurement of friction is translated to the directional heading displayed at the helm (on the bridge) and based on True North.

