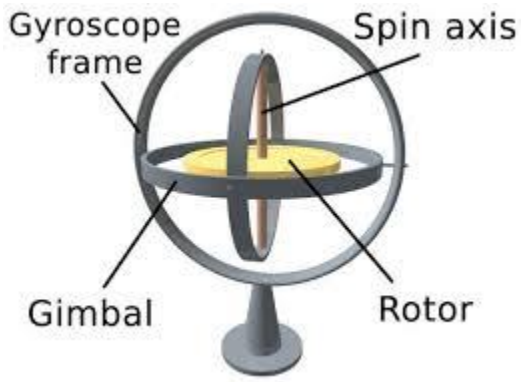
Design, Build, and Test a Two Wheeled Gyro-car

In table teams, using two wheels and an axle(s) as the base and DC motors and CDs for gyroscopes, design and build a vehicle that can self-balance standing still and as it rolls along the floor and can be pushed from the side and not fall over from a standing position.



First

Research gyroscopes and their uses in various vehicles from boats, planes, cars, and motorcycles. Even your bicycle uses gyroscopic properties to keep you upright as you ride.

Next

Brainstorm some ideas at your table and draw out some sketches of your best concepts. Choose your best design based on group consensus and build a prototype to test and see how it works. Make refinements along the way as needed.

Finally

Write up your report be sure to talk about the process the group went through from beginning to end, challenges along the way, include data collected, drawings, photos of final project, and reflections on what could be done to better the design. This report will be written in paragraph form and typed.