

Super Precision Gyroscope



The Super Precision Gyroscope has been designed and built to the highest precision from the very start, made from solid brass with a light-weight aluminium frame. Carefully chosen stainless-steel miniature ball bearings allow it to run smoothly and almost silently for an amazingly long time. The gyroscope comes with a number of attachments allowing numerous configurations to perform scientific, educational or simply mesmerising experiments.

The gyroscope comes with 2 x 50 mm long stainless steel extension rods, 2 x ball ends, 1 x slotted end. The rods when screwed together will extend 100mm, they can be screwed in other positions to create various experiments. There are 7 places on the gyroscope that the attachments can be screwed into.

The modular design allows for numerous tricks and experiments including demonstrating [gyroscopic precession](#) and [nutation](#). The [optional gimbals kit](#) add-on dramatically expands the range of experiments turning into an ideal educational tool. Due to popular requests we also created a [rate kit](#) add-on which allows pilots to understand how a rate gyroscope works.



SUPER FAST 12,000rpm Electric motor start

The included electric motor spins the gyroscope effortlessly up to an impressive 12,000 revolutions per minute. The motor can be fastened to the gyroscope with two screws providing hours of continuous use or it can be used to briefly start it and quickly detach, allowing you to perform experiments for as long as 25 minutes. The electric motor makes it easy and quick to start gyroscope, with speeds you would struggle to achieve with string pull start. The motor has its own battery pack that requires 4 AA batteries. Batteries are not included.



SUPER SMOOTH computer balanced disk

If a spinning object is unbalanced it will vibrate. A gyroscope needs to be balanced, just like a wheel on a car is balanced to ensure a smooth ride. The super gyroscope disk is made from brass and machined to microns precision, ensuring the disk is incredibly symmetrical and well balanced. Despite the brass looking perfect on the surface, it is an alloy, made up of a number of other metals and these metals are not always evenly dispersed resulting in a very slight non-uniform weight distribution. To correct this, the disk is then computer balanced to an impressive 250th of a gram accuracy! Thus giving the gyroscope a highly balanced, super smooth feel, longer spin and even quieter operation.



SUPER SUSTAINED spin times of up to 25 minutes

Carefully chosen miniature ultra-low friction stainless-steel ball bearings allow it to run smoothly and almost silently for up to 25 minutes, allowing you to perform the experiments and tricks you want to do without having to reattach the electric motor. Please note: Some experiments and tricks remove quite a bit of energy from the gyroscope. This will reduce spin times.

- Quickly and easily started with the INCLUDED electric motor
- 12,000 revolutions per minute (Faster than any pull cord gyroscope)
- High speed miniature ball bearings
- Computer balanced to an impressive 250th of a gram accuracy
- Latest version has had the 'Spin time' (without motor) increased to 25 minutes from 7 minutes.
- Very high precision manufacture
- Interchangeable attachments for different experiments
- Electric motor can be detached
- SOLID brass 'disk'
- Stainless steel shaft
- Ideal for demonstrations at colleges and universities
- Efficient motor allows hours of use
- Can be used as executive 'toy'
- Designed and built in Britain

Gyroscope Dimensions

Total Weight: 345g

Gyroscope weight without motor : 145g

Weight of brass disk alone (with shaft) : 112g

Aluminium casing, bearings and shaft weigh :33g

Outer frame diameter: 62.5mm

Brass disk diameter: 53mm

Brass disk thickness: 12mm

Motor length: 58.2mm

Motor diameter (at largest point): 28.1mm

Electrical characteristics

Motor Amps (at start up): 2.5 amps

Motor Amps (at full rpm): 0.5 amps

Motor/gyroscope speed: 12,000 rpm~

Motor Voltage with standard batteries: 5.8 volts

Nominal Motor Voltage: 6 volts

Batteries: Four 'AA' batteries

(batteries not included *)