



The Gyroscope

F. J. B. Cordeiro

Download now

[Click here](#) if your download doesn't start automatically

The Gyroscope

F. J. B. Cordeiro

The Gyroscope F. J. B. Cordeiro
From the PREFACE.

Our exact knowledge of Rotary Motion, as of Dynamics in general, dates from the time of Newton. Euler, Laplace, Lagrange, Poisson and Poinsot are illustrious names in the development of the theory. Foucault, in 1855, demonstrated the rotation of the earth by means of the gyroscope, and gave it its name. Its practical applications date from yesterday. These began with the Griffin Grinding Mill, and have been followed by the Howell and Obry devices for keeping a torpedo on a straight course, the Schlick Stabilisator for ships, the Brennan Gyro-Monorail, the Anschuetz-Kaempfe Gyro-compass, and the end is not yet.

The theory of rotary motion is not simple, nor is it yet complete. Not all inventors have understood the reason for their devices, and not all mathematicians have had a clear conception of the theory, as evidenced by the unnecessary complication of their treatments.

Attempts have been made to explain gyroscopic action without mathematics, or at least without the Calculus. It is hardly necessary to say that all such attempts are futile. It is impossible to explain the actions of a gyroscope without mathematics, and it is impossible to understand them without such knowledge.

Many students are afraid of what is called the higher mathematics, and are permitted to avoid them in our higher institutions of learning. Mathematics, in its broadest sense, is the science of time, space, mass and force, and the relations existing between these four quantities. It is the foundation upon which all the exact sciences are built, as it is the foundation of the universe. Everything else may and does change, but the principles of mathematics alone remain eternal.

There is no doubt that mathematics are difficult: all other forms of intellectual effort are mere child's play in comparison. Hence, many who are scientifically inclined, seek a field in the inexact sciences, or in the pseudo-sciences, where these difficulties may be shirked. It is noteworthy, however, that even here, as these branches become developed, they are found to reach down to the solid bedrock of mathematics, where their cultivators, who have neglected the fundamental science of all, find themselves in an unenviable position. This is notably the case with meteorology.

The day will undoubtedly come (and the sooner, the better) when mathematics will be made the foundation of every education, and no man (or woman) can be considered educated who does not know the Calculus. A virile mind will not quail before its difficulties, but will experience a joy in surmounting its obstacles — the gaudium certaminis — such as can be found in no other intellectual field.

The student with an elementary knowledge of mathematics, who attempts to understand gyroscopics from a study of its scattered parts in standard treatises, and from the few monographs as yet written, will find the task tedious — probably repulsive. For this reason, it has seemed advisable to the author to write a monograph which may be easily understood by anybody possessing an elementary knowledge of mechanics and the calculus. The book is divided into two parts — the development of the theory from the Fundamental Gyroscopic Principle, and a discussion of its modern practical applications. The motions of the heavenly bodies, where gyroscopics are exhibited in their grandest and freest (frictionless) form, have been fully explained, but the engineer and cursory student, who care only for the elementary theory and an explanation

of its applications, may omit the astronomical discussion without loss of continuity.

 [Download The Gyroscope ...pdf](#)

 [Read Online The Gyroscope ...pdf](#)

Download and Read Free Online The Gyroscope F. J. B. Cordeiro

From reader reviews:

Morgan Woods:

Have you spare time for a day? What do you do when you have more or little spare time? Yes, you can choose the suitable activity intended for spend your time. Any person spent all their spare time to take a go walking, shopping, or went to the Mall. How about open or read a book eligible The Gyroscope? Maybe it is for being best activity for you. You recognize beside you can spend your time together with your favorite's book, you can cleverer than before. Do you agree with the opinion or you have different opinion?

Rosemary Taylor:

Now a day people that Living in the era everywhere everything reachable by interact with the internet and the resources inside it can be true or not involve people to be aware of each facts they get. How people have to be smart in having any information nowadays? Of course the correct answer is reading a book. Reading through a book can help folks out of this uncertainty Information especially this The Gyroscope book as this book offers you rich data and knowledge. Of course the details in this book hundred per-cent guarantees there is no doubt in it as you know.

Frank Bullard:

Many people spending their period by playing outside together with friends, fun activity with family or just watching TV the whole day. You can have new activity to spend your whole day by studying a book. Ugh, think reading a book can definitely hard because you have to accept the book everywhere? It all right you can have the e-book, getting everywhere you want in your Cell phone. Like The Gyroscope which is finding the e-book version. So , why not try out this book? Let's view.

Elvis Harris:

Publication is one of source of information. We can add our knowledge from it. Not only for students but additionally native or citizen require book to know the update information of year to year. As we know those ebooks have many advantages. Beside most of us add our knowledge, could also bring us to around the world. By the book The Gyroscope we can acquire more advantage. Don't that you be creative people? To get creative person must love to read a book. Just simply choose the best book that acceptable with your aim. Don't end up being doubt to change your life at this book The Gyroscope. You can more attractive than now.

Download and Read Online The Gyroscope F. J. B. Cordeiro

#4YPDR5A2U9L

Read The Gyroscope by F. J. B. Cordeiro for online ebook

The Gyroscope by F. J. B. Cordeiro Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read The Gyroscope by F. J. B. Cordeiro books to read online.

Online The Gyroscope by F. J. B. Cordeiro ebook PDF download

The Gyroscope by F. J. B. Cordeiro Doc

The Gyroscope by F. J. B. Cordeiro Mobipocket

The Gyroscope by F. J. B. Cordeiro EPub