GYROSPHERo – inspired by Jurassic World!

**Background**

The Gyrosphere is a sphere shaped ride in *Jurassic World* fiction movie that takes tourists around an area with over 30 species of dinosaurs. In real world, sphere shaped *vehicles* and *robots* are becoming more and more popular. Even *NASA* has started to investigate such types of robots.

The goal of this project is to develop and implement an algorithm for spherical robots (Sphero Bolt robots) to *autonomously follow* the leading vehicle/robot while *making* and *keeping* different formations.

**Problem description**

The project also incorporates the *mathematical* formulation of the problem, *controller design* for *motion* and *speed* control, and *collision avoidance* between the bots. Furthermore:

- use at least 3 robots and 4 different formations,
- use the internal sensors and communication possibilities between the Sphero Bolt robots to accomplish the task,
- and have some fun!

**Målgrupp:** TKAUT, TKMAS, TKELT, TDAT, TTFY,

**Gruppstorlek:** 3-6

**Antal grupper:** 1-2

**Förkunskapskrav:** Reglerteknik

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(Handledare och Examinator kan meddelas senare när projekten är tilldelade)