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Lunar Scout: Task 2

Krutarth e-Yantra Staff Sep 2023

Lunar Scout - Task 2

👋 Hello there !

In the last task of **Stage 1** of e-Yantra Robotics Competition '23-24, you will design and build a bike that can balance and move in a virtual environment. Up until this task you have already installed software that are required for the theme and have a good understanding of the world of mathematical modeling along with Control Systems.

The task is divided into 3 sub-tasks:

Task 2A : Designing the Bike

Here you'll design and assemble a full bike in CoppeliaSim using the provided constraints. You will finally get to know how the rotary inverted pendulum system maps with the Lunar Scout !

Task 2B : Balancing & Yaw control

Once the bike is designed, It's time to test the functionality & see if the design is really well thought - considering the dynamics of the system. The mathematical modeling that you have previously done for simple rotary inverted pendulums will have to be extended for your bike.

Task 2C : Path traversal (UPDATED)

Finally, if the self-balancing "Lunar Scout" bike successfully stands on it's own, then it's time to make it move!

DEADLINE :

> All 3 sub-task will have **different deadlines**:
> Task 2A : **[23/10/2023]**

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> Task 2B : **[31/10/2023]**
> Task 2C : **[10/11/2023]**

Task2 is now live

Unlisted on Sep 21, 2023

Closed on Sep 21, 2023

Listed on Oct 11, 2023

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