Capstone for Embedded Systems Course

Hello!

Hope you a had a good hands-on learning experience in creating simulation circuits on Tinkercad platform for the projects Automatic Water Level Controller and Solar Tracker. These projects would have given you a chance to build and apply your technical skills on Embedded Systems. You are now ready to take on a challenge and solve an interesting problem on Embedded Systems.

Problem Statement:

In the solar tracker project, you had built a single axis solar tracker such that the solar panel system can produce energy efficiently and responsibly. This tracker system however had the limitation that it can align the solar panels in only two cardinal directions of East and West. To maximise the solar energy collection from the panels, it is important that the solar panels are aligned to all the four cardinal directions i.e. East-West and North-South. To achieve this, a dual axis solar tracker is needed. In this capstone, you need to modify the solar tracker project to create a dual axis tracker using Tinkercad platform. After completing the circuit design, download the Picture of your design and the electrical design file in .BRD format.

Hint: Adding a second servo motor

Submit your Capstone by following the steps below:

1) **Click on this link to access the Onedrive location where you need to upload your files**
   Link to Embedded Systems Capstone Folder

2) **Create a folder with your full name followed by the school name, district name, state name as shown below**

My files > Emerging Technologies Program FY22-23 > Student Capstone Submissions > **Embedded Systems Capstone**			
Name ⌄	Modified ↓ ⌄	Modified By ⌄	File size ⌄
📁 Neha Mittal_GHSS, Belagavi, Karnataka	A few seconds ago	Technology Innovation	2 items

3) **Upload the picture of your design and the electrical design file in .BRD format as shown below**

⋯ > Student Capstone Submissions > Embedded Systems Capstone > **Neha Mittal_GHSS, Belagavi, Karnataka**			
Name ⌄	Modified ↓ ⌄	Modified By ⌄	File size ⌄
Solar Tracker Dual Axis Tracker.png	6 minutes ago	Technology Innovation	65.6 KB
Solar Tracker Dual Axis Tracker.brd	6 minutes ago	Technology Innovation	23.5 KB

Prerequisite:
Ensure that you have gone through all the videos and completed the projects of the Embedded Systems course on Planetcode.in portal. The course content will equip you to solve the problem given in this capstone. If you have not completed the course or would like to revise the content, please go to the platform https://planetcode.in/ before you proceed.

Platforms / Tools Needed:
Tinkercad: https://www.tinkercad.com/