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# NEWTON'S CRADLE

**INSTRUCTIONS:**

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**Goal of the Project:**

In Class 26, you learned how to create constraints and tie together two bodies.

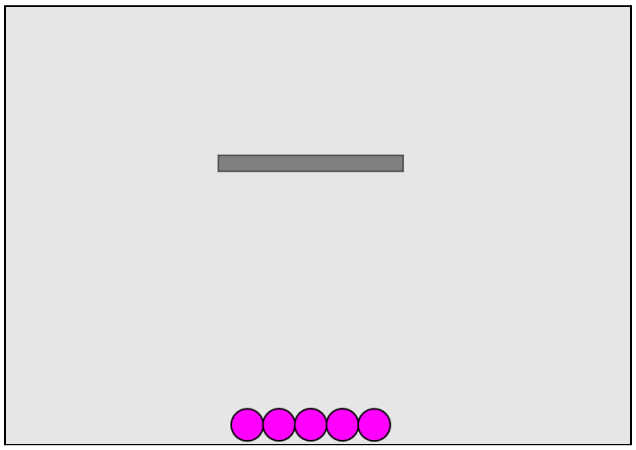
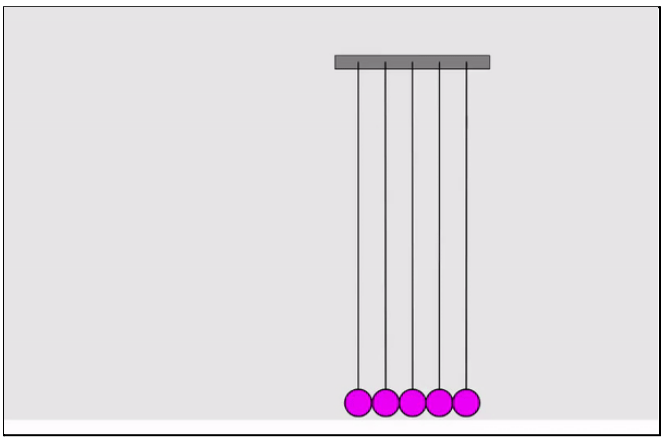
In this project, you have to practice and apply what you have learned in the class and create a Newton's Cradle using constrained bodies.

**Story:**

Newton's Cradle is a toy that demonstrates the transfer of momentum when two objects or a group of objects collide.

You have to create this toy by writing a code. You will be adding five pendulums to create this toy. Are you ready for the challenge?

See a video of Newton's Cradle in action.

| Project Template Output | Project Expected Output |
| --- | --- |
|  |  |

***This is just for your reference. We expect you to apply your own creativity to the project.**

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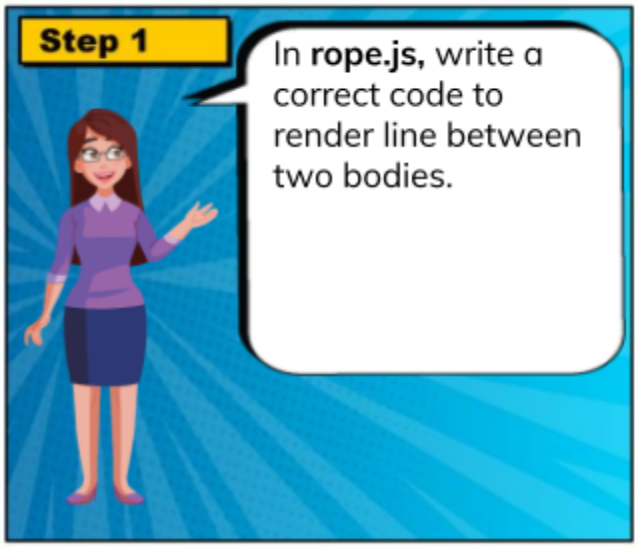
WhiteHat Jr
Live Online Coding for Kids

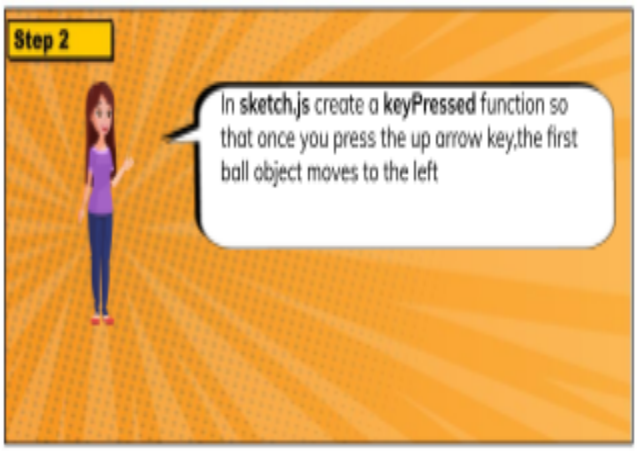
**Getting Started:**

1. Use the blank template on **GitHub**, by downloading from here.
2. **Unzip** the downloaded zip folder.
3. Rename the unzipped folder as **Project 26.**
4. **Import** this folder into **VS Code**.
5. Start editing your code in **sketch.js**.

**Specific Tasks to Complete the Project:**

A pendulum is made up of a rope with a bob suspended at the end of the rope. The bob is the weight attached at the end of the rope.

| Challenges | Code Blocks / Output |
|---|---|
|   | `display()`<br>`{`<br>`  var pointA=this.rope.bodyA.position;`<br>`  var pointB=this.rope.bodyB.position;`<br>`  strokeWeight(2);`<br>`  //WRITE THE CORRECT CODE TO RENDER A LINE BETWEEN THE TWO BODIES`<br>`}` |




```
function keyPressed() {
    if (keyCode === UP_ARROW) {
//WRITE A CORRECT CODE TO APPLY A KEYPRESSED
}
}
```


**Submitting the Project:**

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1. **Upload** your completed project to your **GitHub** account. **Here is a video on how to do this:** https://vimeo.com/561338335/aa2b0db66e

2. Enable **GitHub** pages for the repository. After you have done this step, wait for a few minutes for the website for your project to be live. **See the video given below:** https://vimeo.com/561338446/a7e3084fb4

3. Copy the **GitHub** link and submit it in the Student Dashboard Projects panel against the correct class number.

**REMEMBER... Try your best, that's more important than being correct.**
After submitting your project, the teacher will give you feedback on your project work.

———— xxx ———— xxx ———— xxx ———— xxx ———— xxx ————