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Github Link:

<https://github.com/ElominaZivv/GDPHYSX/tree/Phase2>

Implementation:

Requirements	Implementation
Particles	<p>There are 5 total particles with a mass of 50 and a restitution of 0.9 on screen as mentioned in the specifications. All particles drop down and first but will eventually go back up due to the natural “pull back” action from the string holding them.</p> <p>The first particle, that is, the particle on the leftmost, can be activated by pressing the Space key. This would add a force to the particle towards the left direction, which causes it to eventually come back and knock all the other particles.</p>
Inputs	<p>The player is able to fill in the details for the simulation. Namely, they can fill the following:</p> <ul style="list-style-type: none">- Cable length- Particle gaps/padding- Radius of each particle- Force applied- Gravity constant
Camera	<p>The window size is 800 x 800. The user is also able to switch between Orthographic and Perspective camera, as well as an option to rotate around the simulation.</p> <p>The camera in both views also includes all 5 particles (unless the player chooses to block a particle with another one by facing directly sideward, which is not unexpected behavior)</p>
Cable / Linking Particles	<p>The cables have an origin point as seen in the small circles on the screen. Cables will hang from these, which is where the particles will be linked from.</p> <p>The positions of each cable are also correctly</p>

	right above each particle. The positions of these anchors do not change with respect to the actual particle object; it remains static.
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References:

Thin Matrix. (Nov 16, 2024). OpenGL 3D Game Tutorial 19: 3rd Person Camera.

<https://www.youtube.com/watch?v=PoxDDZmctnU>