

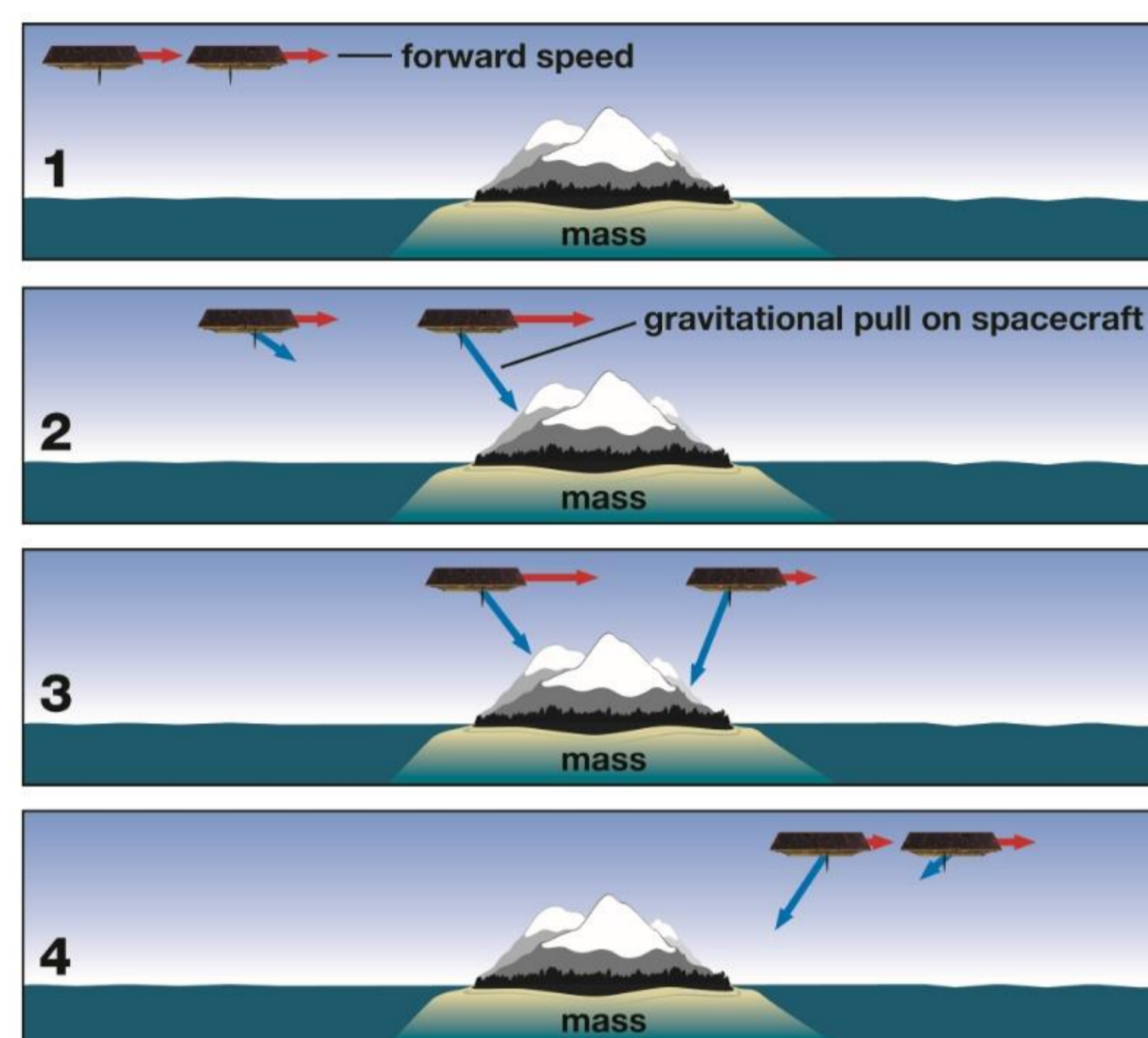
Low-Cost Experiments in STEM Education



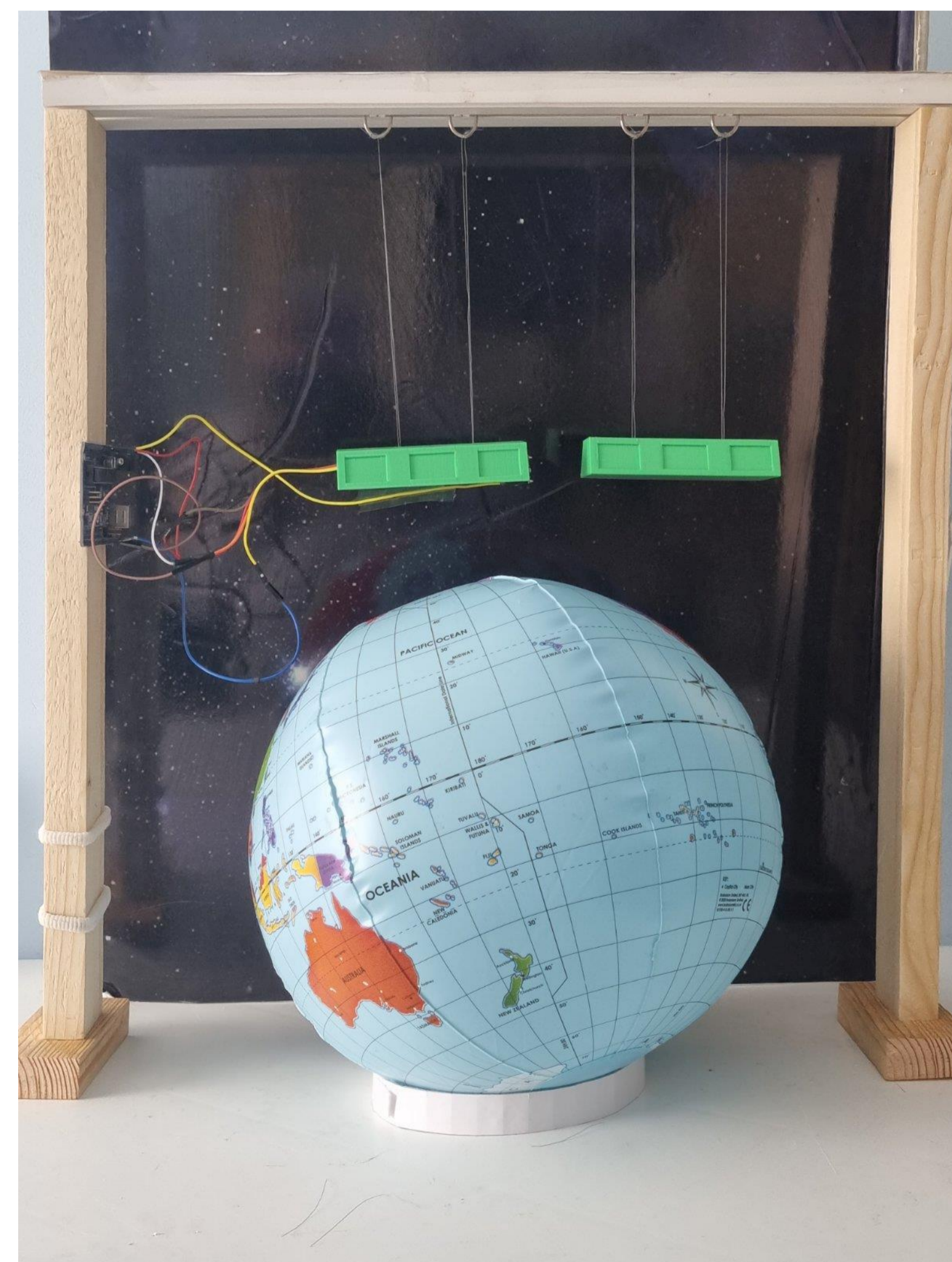
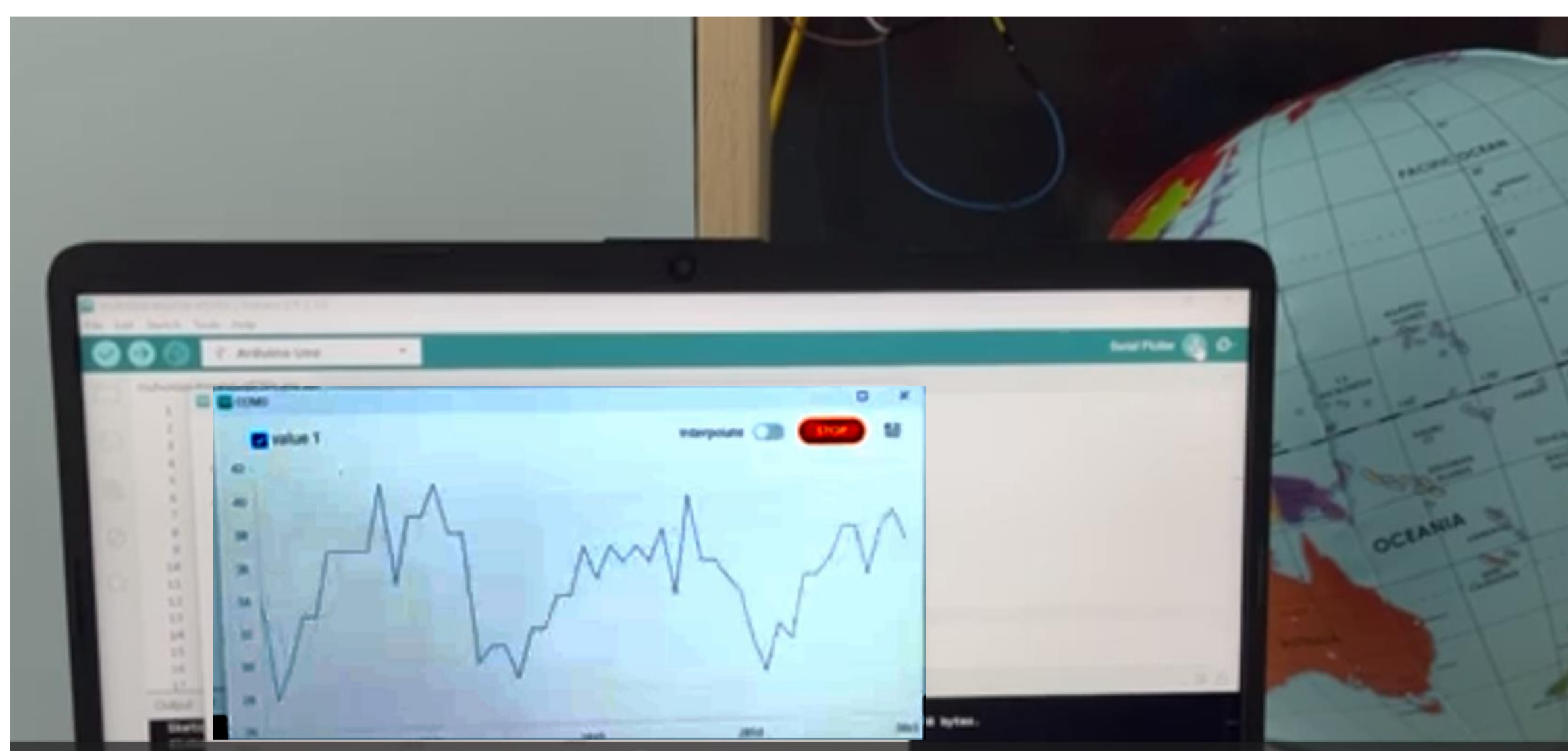
Annamária Komáromi | Balassi Bálint Eight Grade Secondary Grammar School | Budapest | Hungary

Grace Fo Satellites in the classroom

I present a simplified version of the measurement of the GRACE-FO satellites using Arduino. The distance changes between the model satellites are also tracked by laser ranging. The data are shown with the help of the serial plotter of Arduino. This distance measurement is a key for understanding variations in the Earth's gravity field and, consequently, changes in mass distribution on the planet, therefore it is crucial for studying climate change, sea level rise, and other environmental processes.



<https://gracefo.jpl.nasa.gov/resources/50/how-grace-fo-measures-gravity/>



Students can also prepare the experimental set-up, including 3D design and printing, as well as the Arduino program code.