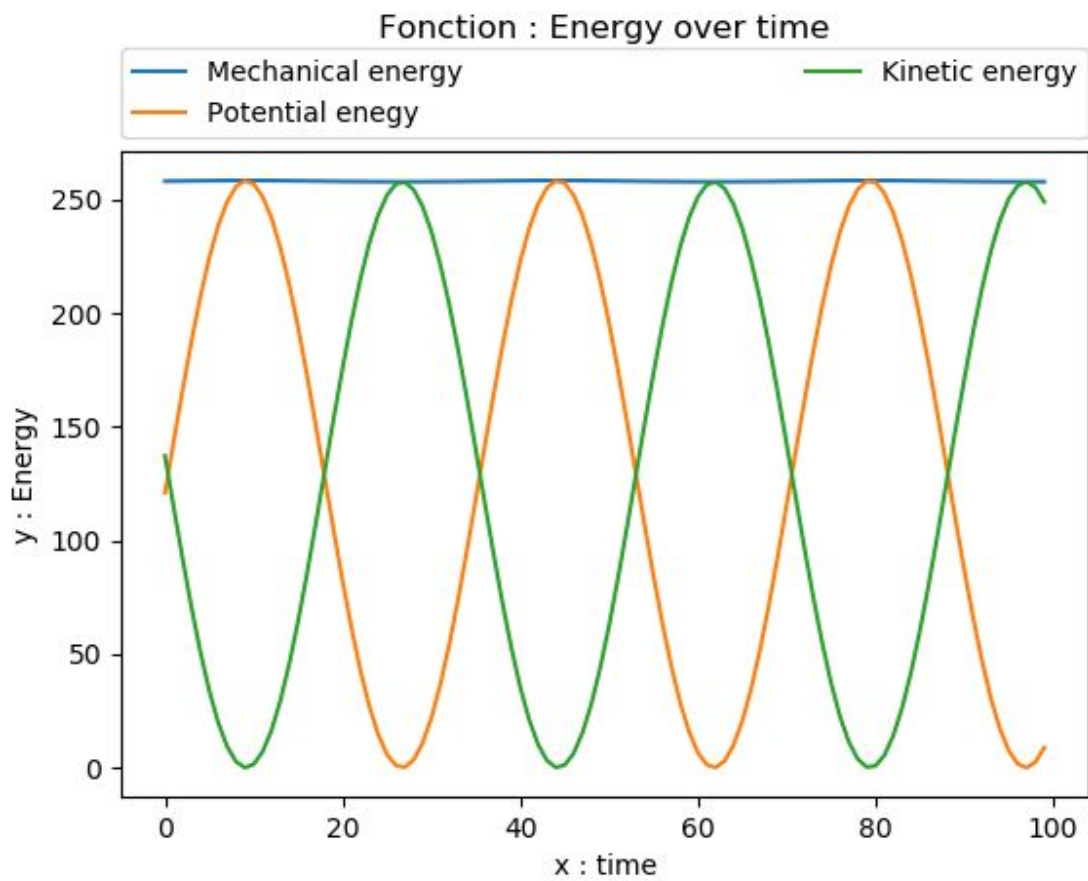


his simulated trajectory is accurate. We can compare it to a spring to verify our saying. The Leapfrog method is second-order accurate and is very stable. We could compare it to the simulation of the earth spinning around the sun, or other gravity simulations since in that case the acceleration depends only on the positions of the gravitating masses and not on their velocities.



Mechanical energy stays constant over time.