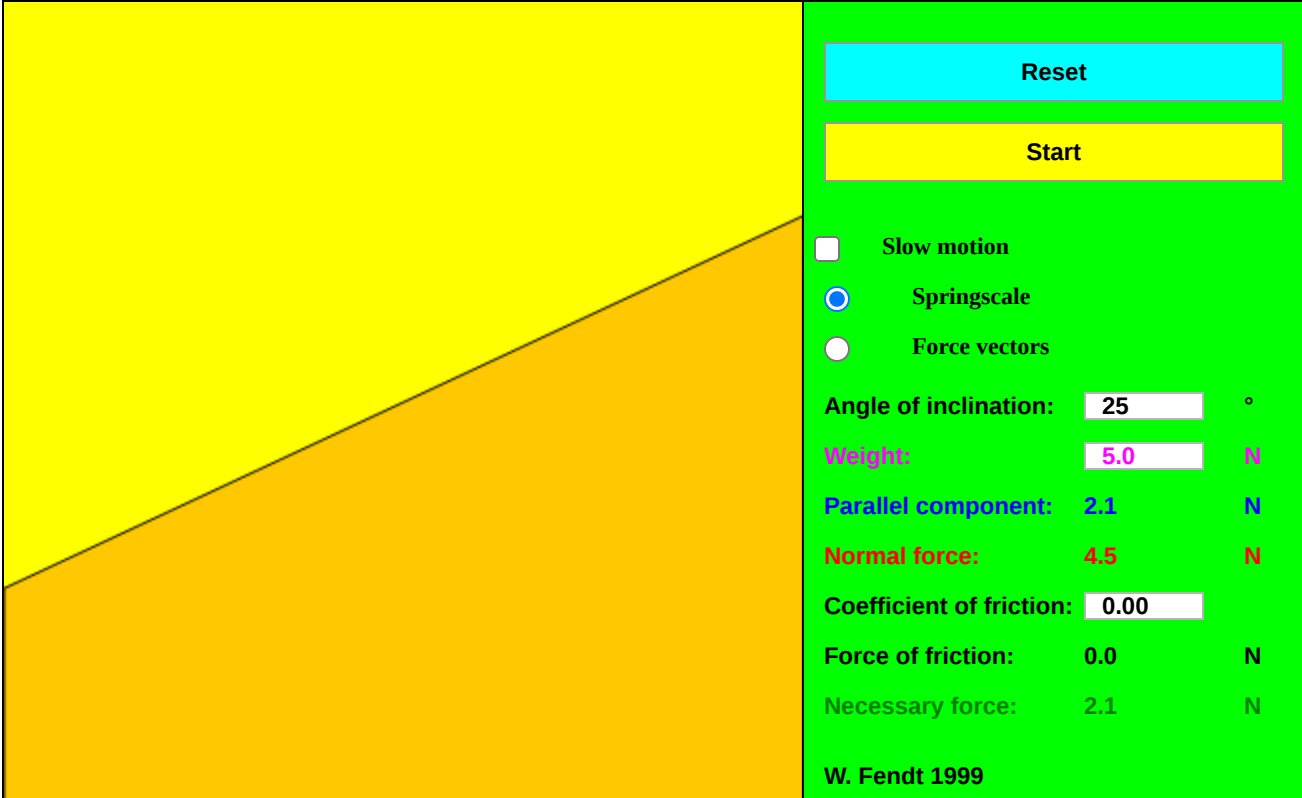


14.1: Example Simulation- Inclined Plane

This app demonstrates a motion on an *inclined plane* with constant velocity and the corresponding *forces*.

The "Reset" button brings the block to its initial position (outside of the picture). You can start or stop and continue the simulation with the other two buttons. Depending on the selected radio button the app will show a springscale from which you can read the necessary force, or the vectors of the weight force with its two components (parallel and normal to the plane), the normal force, the frictional force and the force which is necessary for the motion.

The angle of inclination, the weight of the block and the coefficient of friction can be changed within certain limits. The app will calculate the magnitudes of the mentioned forces.



Reset

Start

☐ Slow motion

☒ Springscale

☐ Force vectors

Angle of inclination: 25 °

Weight: 5.0 N

Parallel component: 2.1 N

Normal force: 4.5 N

Coefficient of friction: 0.00

Force of friction: 0.0 N

Necessary force: 2.1 N

W. Fendt 1999

Link to the original page: https://www.walter-fendt.de/html5/ph...edplane_en.htm

This page titled 14.1: Example Simulation- Inclined Plane is shared under a CC BY-NC-SA 4.0 license and was authored, remixed, and/or curated by Walter Fendt.