

The scenario

Subject	Mechanics / Friction blocks
Length	4:20
Main goals	Get to know about static friction coefficients for different materials
Detailed goals	To understand that the static friction coefficient depends on the material of the surface that undergoes friction.
Structure and description of experiments:	
1. Introduction	Friction force depends on normal force and type of two surfaces that are in contact. In this experiment we will examine static friction with same normal force but for different surface materials.
2. Main subject	Friction blocks
Experiments	Having one inclined plane, which angle can be increased continuously, we put same brass blocks on different surfaces on the plane: aluminium, rubber, wood, PTFE. Then we can ask, which of these blocks will start to move as the first one and what will be the order of starting. The proper order is PTFE, Al, wood, rubber.
3. Summary, evaluation and remarks	Using simple algebra one can demonstrate that the coefficient of friction equals tangent of the angle of motion start. Level: primary school and secondary school