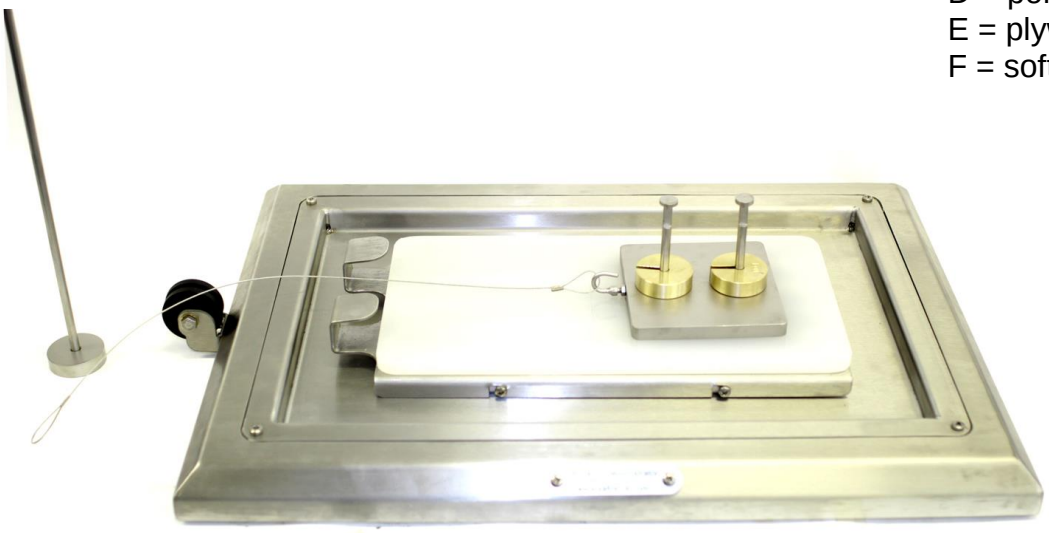
A = hard rubber
B = acrylic
C = stainless steel
D = polypropylene
E = plywood
F = soft rubber

Leonardo Demonstrator



The **coefficient of friction** (static or kinetic) is a measure of how difficult it is to slide a material of one kind over another; the coefficient of friction applies to a pair of materials, and not simply to one object by itself.

$$coefficient\ of\ friction = \frac{force\ required\ to\ overcome\ friction}{Normal\ load}$$

Your task is to determine the **coefficient of kinetic friction** between your provided plates and the sledge that will be drawn across it.

Step 1: With help insert your plate into the tray, place the sledge on the plate and check that the wire and weight tray are present.

Step 2: load or unload the sledge until the sledge moves across the plate with the slowest speed.

Step 3: Sum up the weight of the sledge + the weights this is the 'normal load'. Sum up the weight on the pulley, this is the 'force required to overcome friction'.

Step 4: Calculate the coefficient of kinetic friction for each material pair.