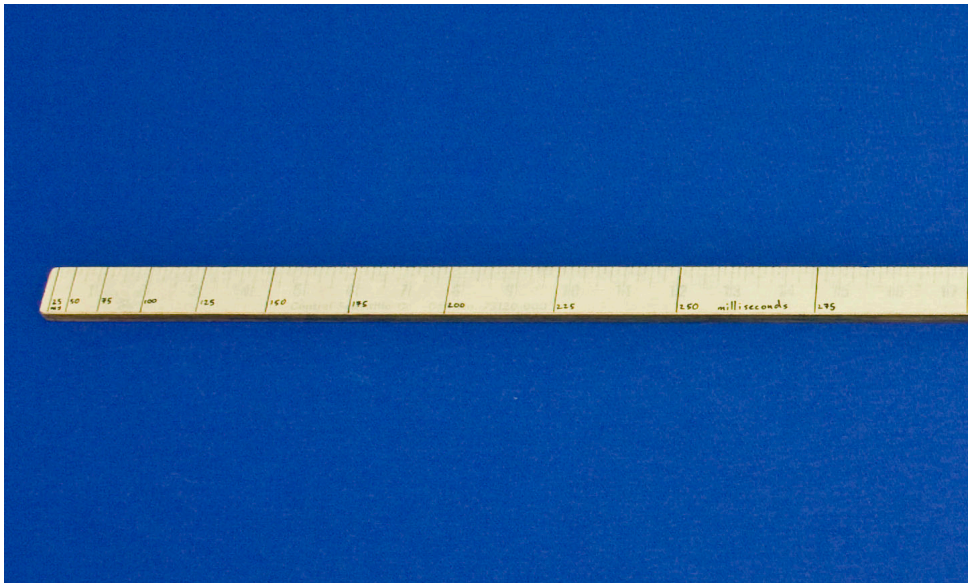
# CATCH A METER STICK 1C30.55

Mechanics | Motion in One Dimension | Measuring g




## Concept:

Measures the reaction time of a person trying to catch a falling meter stick, whose constant acceleration is due to earth's gravity. The local acceleration due to gravity is 9.81 $m/s^2$. The time readings on the meter stick were calculated using: $t = \sqrt{2y/g}$ .

## Equipment:

- Specially Marked Meter Stick

## Procedure:

1. One person holds the meter stick vertically with the smallest millisecond measurements at the bottom.
2. The catcher positions their thumb and index finger on either side of the stick's bottom end.
3. The person holding the meter stick drops it at a random time.
4. The catcher tries to catch the meter stick by pinching their fingers together without moving their hand.
5. Note the reaction time written on the stick where the catcher's fingers squeezed together.