



AREA IX

LABORATORIES

B2. LIST OF FABRICATED TOOLS AND APPARATUSES, INCLUDING RELEVANT INFORMATIONS



B. EQUIPMENT AND SUPPLIES

B.2 List of fabricated tools and apparatuses, including relevant Information

1. Curved Track



Curved Track

Relevant Information

In a Physics Lab, a curve track can be used to demonstrate various concept related to motion, particularly centripetal force and circular motion. Students can observe when varying the speed of an object moving along the curve, or the radius of the curve itself how these affect the forces acting on the object.

2. Inclined Plane



Inclined Plane

Relevant Information

The inclined plane is demonstrated by tilting a flat surface at an angle to create a ramp. This allows students to explore concepts like work, force and friction by measuring the force needed to move an object up the incline and comparing it to lifting the object vertically.

3. Force Table



Force Table

Relevant Information

In a physics experiment using a force table, students can investigate vector addition of forces and equilibrium. By using a circular table with pulleys, weights, and strings, students can explore how forces combine and balance each other to keep an object at rest. This allows for the experimental determination of the resultant force produced by a combination of forces.

4. Projectile Kit

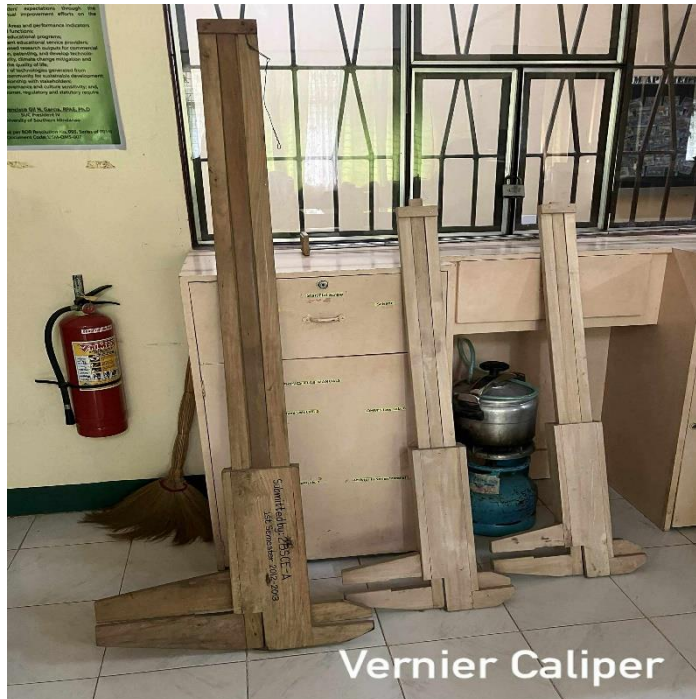


Projectile Kit

Relevant Information

A Projectile Kit in a laboratory experiment involves launching an object (like a ball) at an angle and analyzing its trajectory, which is a parabolic curve due to gravity. It verifies the principles of projectile motion by measuring factors like launch angle, initial velocity, time of flight, and range (horizontal distance traveled). Data collected is then compared with theoretical calculations based on kinematics equations.

5. Vernier Caliper



Vernier Caliper

Relevant Information

A vernier caliper is demonstrated to measure the dimensions of object with greater precision than a standard ruler. The experiment involves determining the least count of the vernier caliper, measuring the external and internal diameters, and potentially calculating volumes. Students learn to read both the main scale and vernier scale, account for zero error and record their observations on the table.