

Computer Lab Project

Economic Development Committee

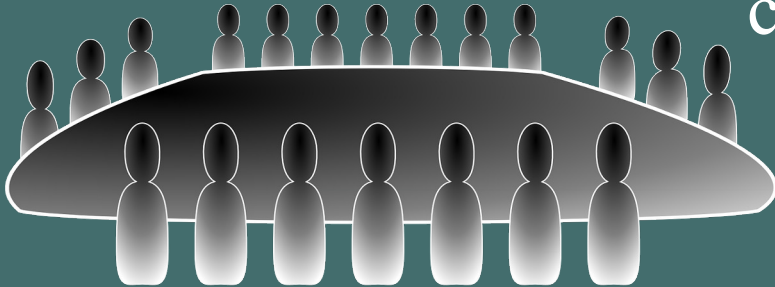
Makhir Diaspora Organization

Minneapolis, MN

2023

OVERVIEW

MDO's Economic Development Committee organized the community to fundraise for a new lab facility at the University of Maakhir renamed as Somali National University. The committee raised close to \$42,000 from the community to build a state-of-the-art computer lab.



**This computer lab consists of
40 brand new HP computers.**



2. 40 desktop stands with storage organizers with adjustable height.

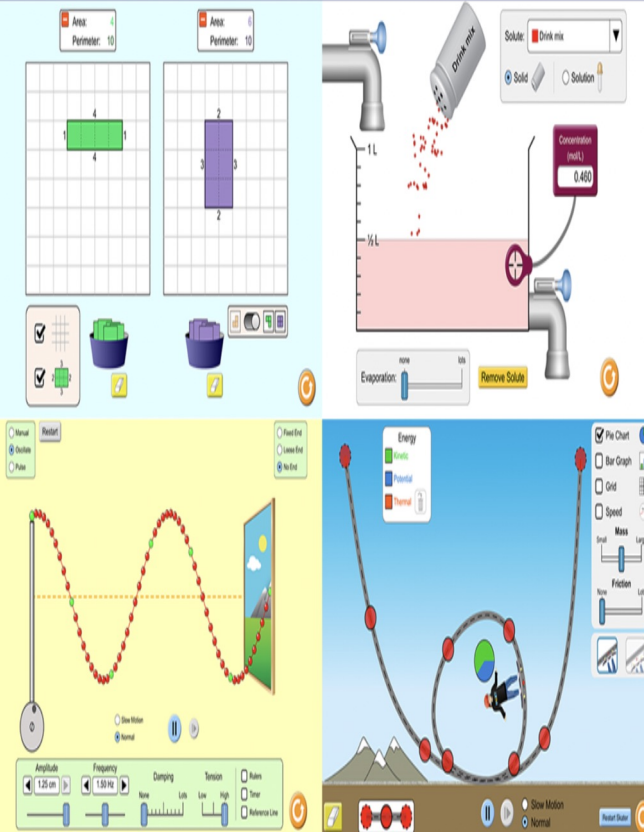


3. an HP laserjet wireless all-in-one laser printer.



1. IR Canon with ADF feeder machine
(multipurpose: print, copy, send, fax).
Estimated cost is \$35000.

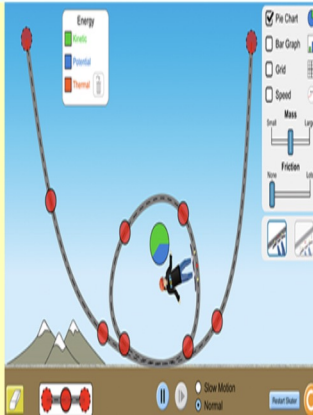
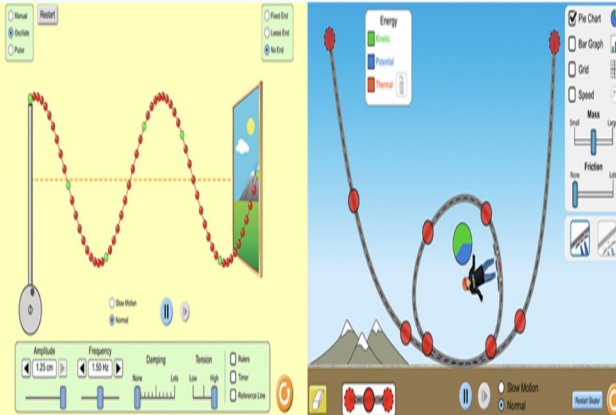
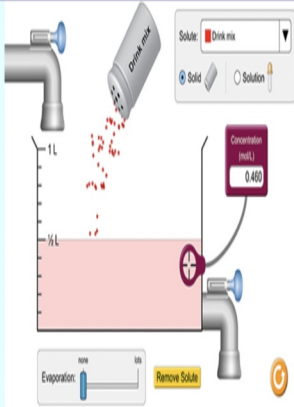
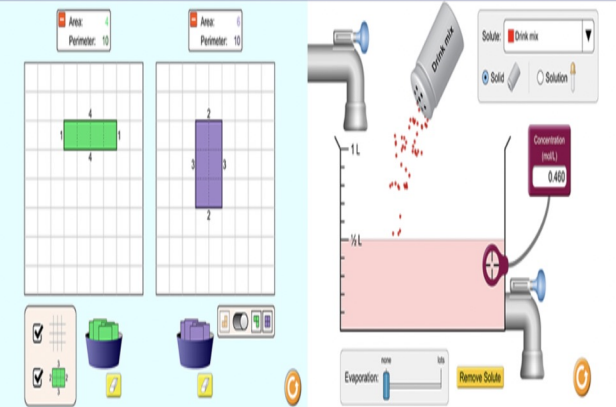




1. Somali National University in Badhan now has access to PhET intensive simulation lab.

2. It's an online virtual lab containing chemistry, physics, and biology experiments owned by the University of Colorado. SNU students will have access to this exceptional resource.

3. Visual & interactive assignment. Students would be able to perform virtual experiments after lectures. This is site is used by over 1.1 billion user world wide.



4. Science faculty would incorporate experiments in the site into their curriculum.

5. This opportunity would enhance students' understanding and application of scientific theories. They are the first group of students in that region with access to such a unique opportunity.

Source: <https://phet.colorado.edu/>

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- It's an online virtual lab containing chemistry, physics, and biology experiments owned by the University of Colorado. After multiple high-level meetings with the University of Colorado officials, SNU students will be granted access to this exceptional resource.



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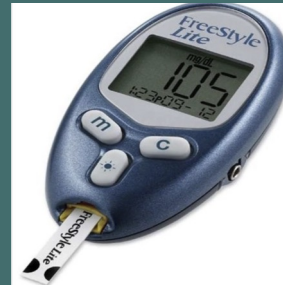
PHET
INTERACTIVE SIMULATIONS

University of Colorado Boulder

The screenshot displays the PhET Interactive Simulations interface, which is divided into four main simulation panels. The top header features the PhET logo and the University of Colorado Boulder name. The panels are as follows:

- Area and Perimeter:** This panel shows two grid-based shapes. The first is a green rectangle with a width of 4 and a height of 1, labeled with 'Area: 4' and 'Perimeter: 10'. The second is a purple rectangle with a width of 2 and a height of 3, also labeled with 'Area: 6' and 'Perimeter: 10'. Below the grids are icons for a ruler and a protractor.
- Concentration:** This panel illustrates a liquid mixture. A container holds a pink liquid, and a red solute is being added from a bottle labeled 'Drink mix'. A control panel on the right allows selecting the solute (Solid or Solution) and shows the current concentration as 0.460 mol/L. A slider for 'Evaporation' is set to 'none', and a 'Remove Solute' button is present.
- Simple Harmonic Motion:** This panel shows a mass-spring system. A red mass is attached to a spring, oscillating vertically. The background shows a landscape with a sun and mountains. Controls include a 'Restart' button, a 'Fixed End' checkbox, and sliders for 'Amplitude' (set to 1.25 cm) and 'Frequency' (set to 1.50 Hz). There are also checkboxes for 'Damping' (Normal) and 'Tension' (Low).
- Roller Coaster:** This panel shows a roller coaster track with a car. The track has loops and hills. A control panel on the right includes a 'Pie Chart' for energy distribution (Kinetic, Potential, Thermal), a 'Bar Graph' checkbox, and sliders for 'Mass' and 'Friction'. A 'Restart' button is at the bottom right.

- *We have sent equipment to the university, including pulse oxy, thermometry, glucometer and blood pressure cuffs.*
- *Nursing students would have offices at the university campus where local community members can come for health care screening. Students will utilize these requirements to screen for chronic medical problems such as high blood pressure (hypertension) & Diabetes Mellitus. MDO hopes to achieve two things: (1) Students will master their nursing skills. (2) Community members will have access to screening. If the students find abnormalities in the screening process, they can refer to the student to a specialist for further/comprehensive evaluation.*



We are now in the process of bringing more equipment to the university to support the nursing program. This includes:

laboratory equipment: pipettes, tips, Containers, storage, tubes,



Surgical instrument: Scalpel, scissors, forceps, clamps, Needles & sutures, Tetractos, suction.



Manikins: A manikin is a full-body patient simulator that mimics human anatomy and physiology and safely allows for the teaching of clinical skills in a professional healthcare setting.



Hospital Beds



MDO hopes this will increase the skills and the number of nursing students that graduate from SNU Badhan.
The estimated cost is \$ 4000.