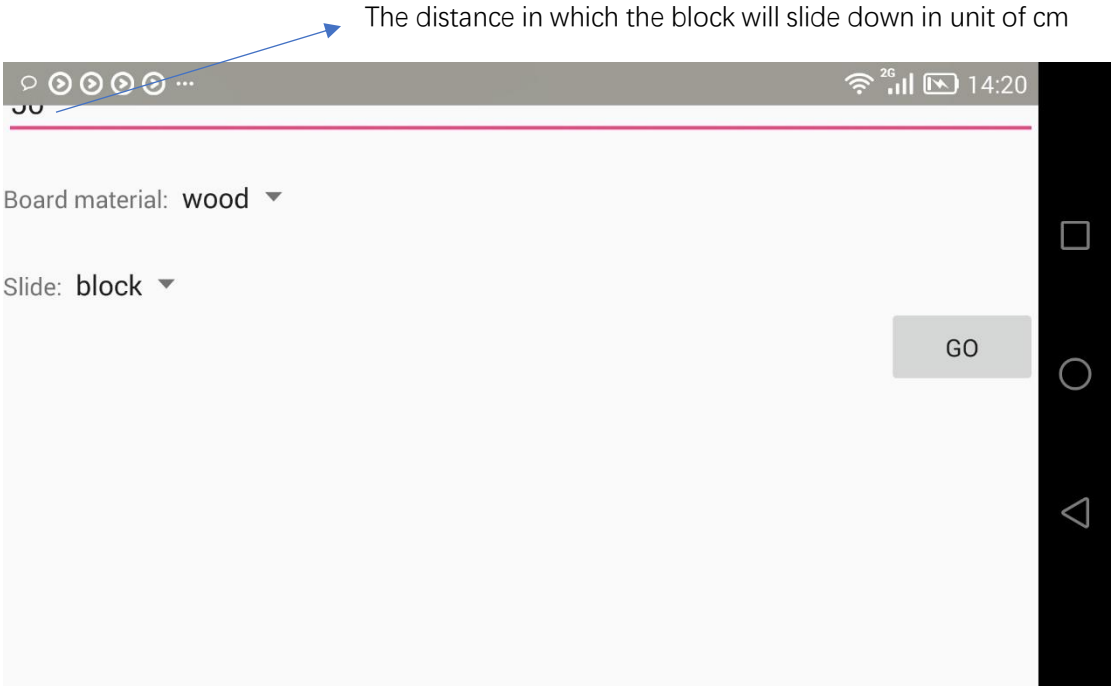
Slide+ physics experiment simulator

(This document is an introduction to the project Slide+)

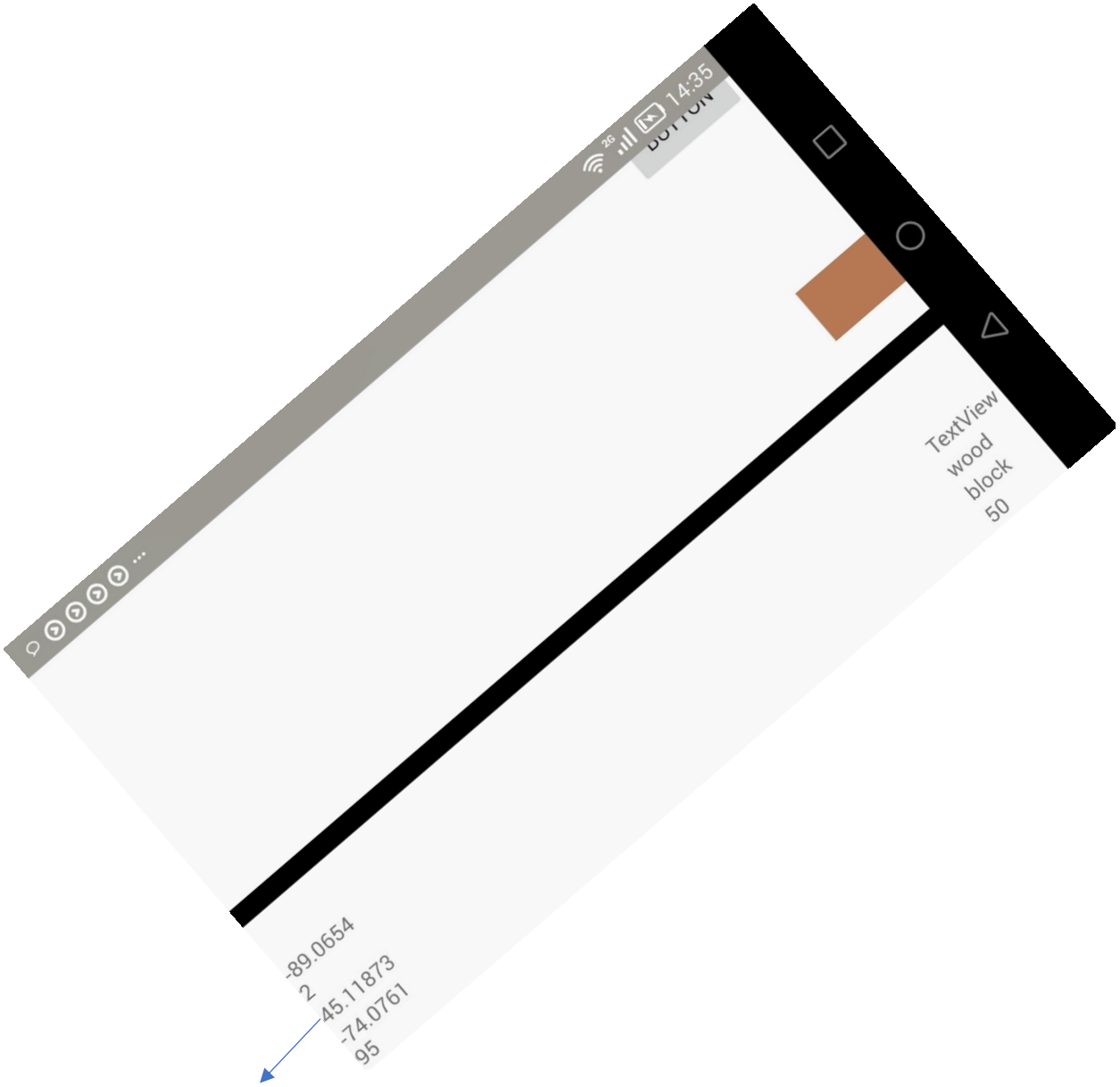
Firstly, the application will first gather the information of the circumstances in which the block slides down.



Different materials for board's surface and different materials for the sliding object can be chosen. Different choices will cause different frictional index when calculating acceleration.

Then, the user must hold their devices (android phones) in a slanted angle, simulating the surface the block is sliding down. The angle of the device can be detected by the application.

So, the actual device looks like this:



The second line represents its horizontal orientation

After clicking the button at the upper right corner of the screen, the animation of block sliding will be presented with acceleration calculated. The rate at which the block slides on the screen is proportinal to the reality of this experiment (calculated by the information inputed by users), which makes this application a simulation.

Value of acceleration