How to Test the Project

Main Requirements

1. Android mobile device with an Active Camera.
2. Target Images we have prepared for testing(Hydrogen, Oxygen, Helium, Carbon and Results) … Link to get the APK and Image Targets here

   Note: the Result card is important…

Onboarding

- Launch the App
- Follow the onboarding process
- Tap on Login(you do not need to fill the input field)
- Proceed to the first main screen(AR Lab)

Video Demonstration on how to test the Project: https://youtu.be/V4X612OZCCQ

Feature 1- AR Lab

AR Lab- This is the first feature of the Application where you get to test different chemical reactions by placing the target Image cards beside each other.

Note: The **'Result'** card is the most important card that must be tracked(must be in camera view), it does not Augment any results until a reaction has triggered it, so it will always look empty.

List of current possible reactions and how to achieve them…

1. **Hydrogen and Oxygen**
   a. Start by pointing the Result Card In Front of the camera to get it tracked.

b. Track Hydrogen and Oxygen to display the atomic structure models.

c. Place Hydrogen and Oxygen side by side to cause a reaction that will augment on the 'Result Card'(the result should be Water)

2. **Carbon and Result**
    a. Point the camera to both Carbon card and Result card once the Carbon card has displayed.

    b. Place the Carbon card beside the Result card to cause a reaction

3. **Helium and Result**
    a. Point the camera to both Helium card and Result card once the Helium card has displayed.

    b. Place the Helium card beside the result card to cause a reaction.

4. **Helium and Hydrogen**
    a. Place the Helium card and hydrogen card side by side to cause a reaction.

5. **Hydrogen and Result**
    a. Point the camera to both Hydrogen card and result card once the Hydrogen card has displayed.

    b. Place the Hydrogen card beside the result card to cause a reaction.

Feature 2- Library

AR Library- A collection of Augmented Reality information of each Chemical element on the periodic table.

- Step 1
    - Navigate to the Library from the Navigation bar.

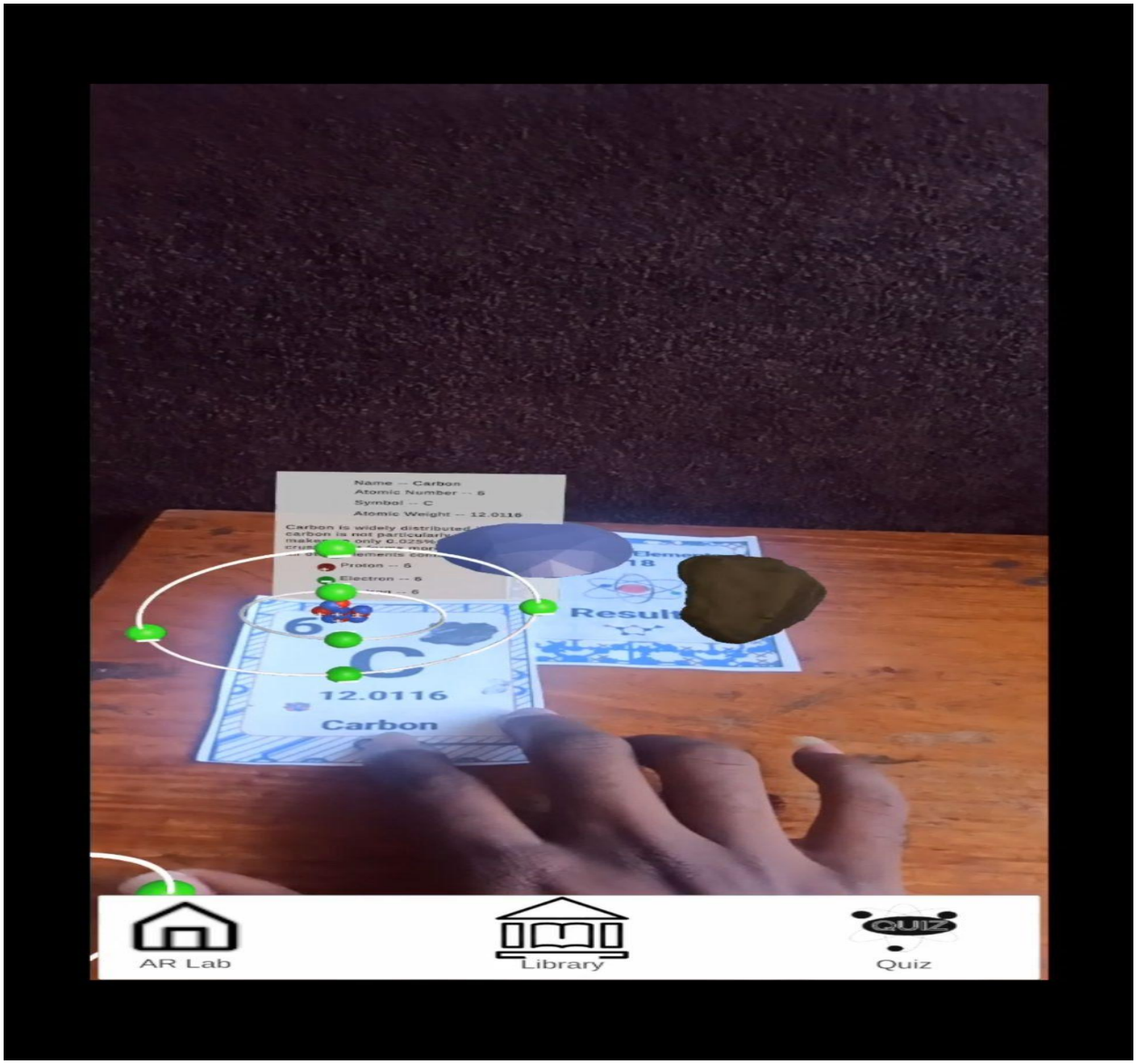
- Step 2
    - Tap on Hydrogen (It is currently the only active Library collection)
- Step 3
    - Point the camera to the Hydrogen Card.
- Step 4
    - Read, Scale , Rotate and manipulate augmented informations around you.

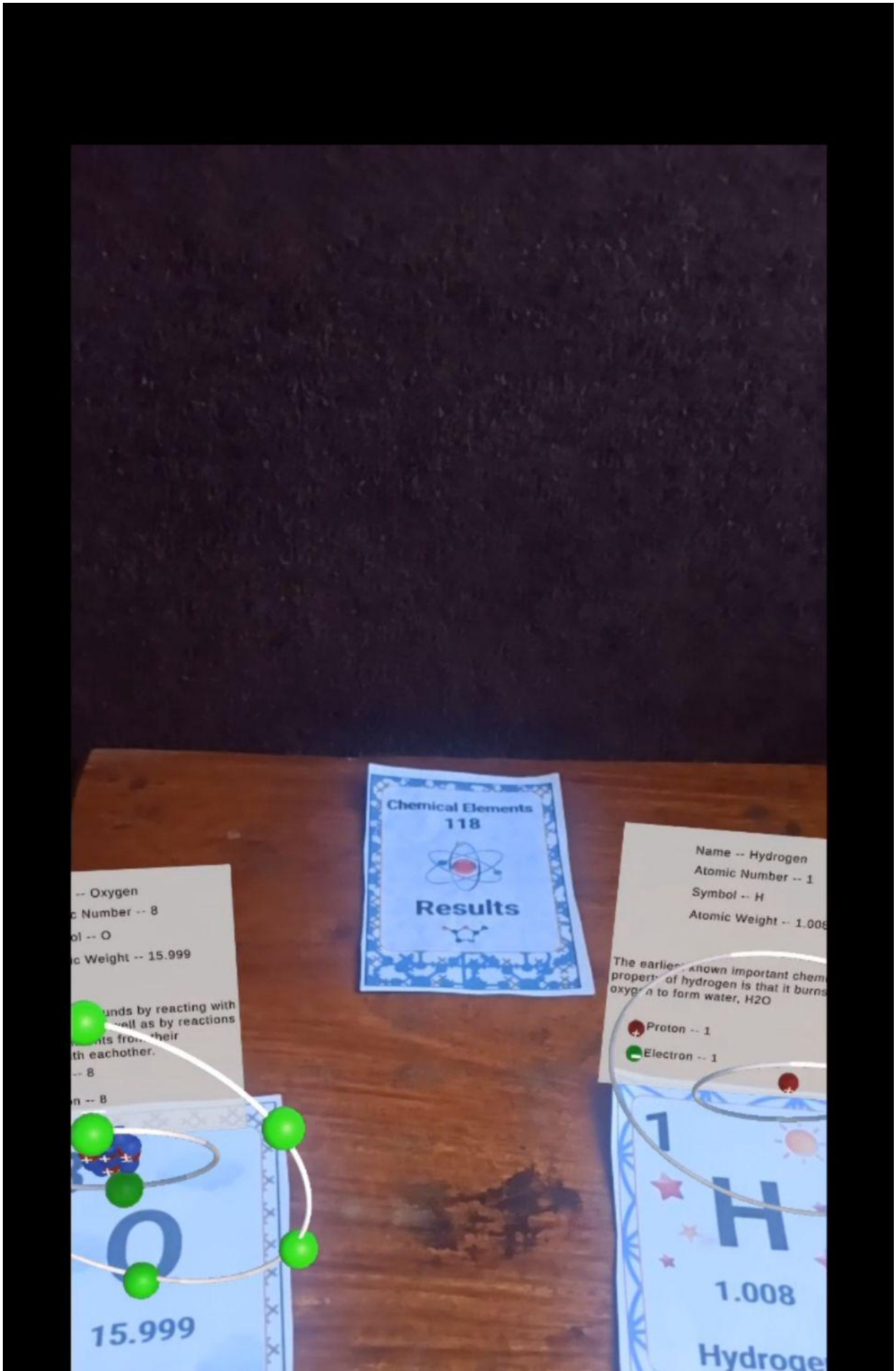
Feature 3- Quiz

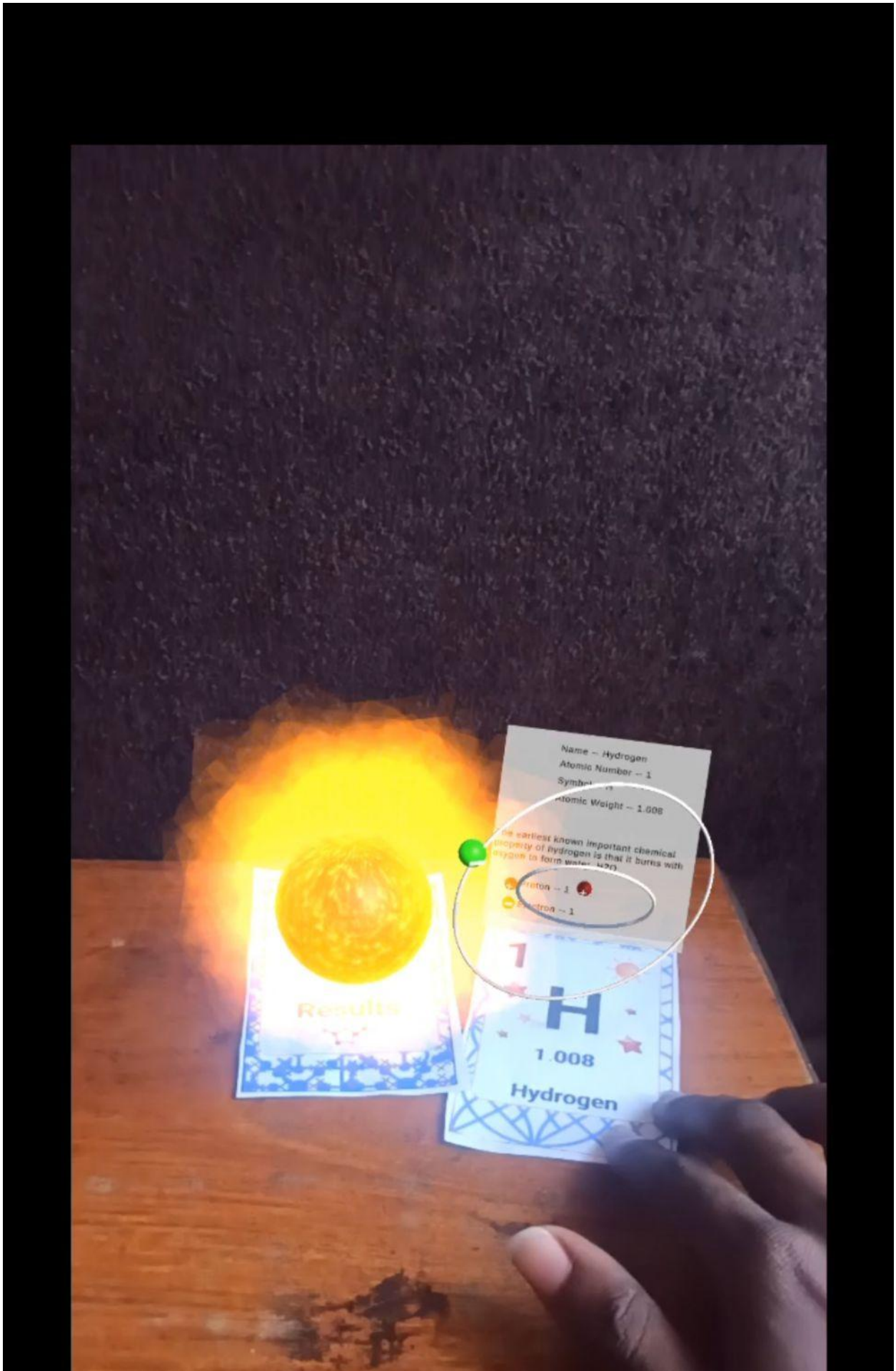
- Answer the correct answers from the questions displayed.
- Switch between Normal Quiz and AR quiz.

Note: in AR quiz mode, the image target to bring up the quiz question board is the 'Result card'

Appendix




Chemical Elements
118
Results
-- Oxygen
c Number -- 8
ol -- O
c Weight -- 15.999
unds by reacting with
well as by reactions
nts from their
th eachother.
-- 8
n -- 8
O
15.999
Name -- Hydrogen
Atomic Number -- 1
Symbol -- H
Atomic Weight -- 1.008
The earlies known important chem
propert of hydrogen is that it burns
oxyge n to form water, H2O
Proton -- 1
Electron -- 1
1
H
1.008
Hydroge


Name – Hydrogen
Atomic Number – 1
Atomic Weight – 1.008
Results
1
H
1.008
Hydrogen