

Augmented & Virtual Reality In the Classroom



LEARNING+TEACHING @ VU



Augmented & Virtual Reality (AR / VR) is changing the educational landscape, with the ability to engage students in endless learning possibilities like never before. This booklet will provide examples of AR and VR in the classroom and how it can be used as a tool to enhance teaching and learning through astonishing and interactive 4D user experience

Unite AR



Create Amazing Race style treasure hunts and tours around campus locations, to encourage students and visitors to explore locations & gather information. Bring your own photos, posters, handouts and worksheets to life with digital media (videos, websites etc.) by embedding a link within a trigger image.

Teachers:

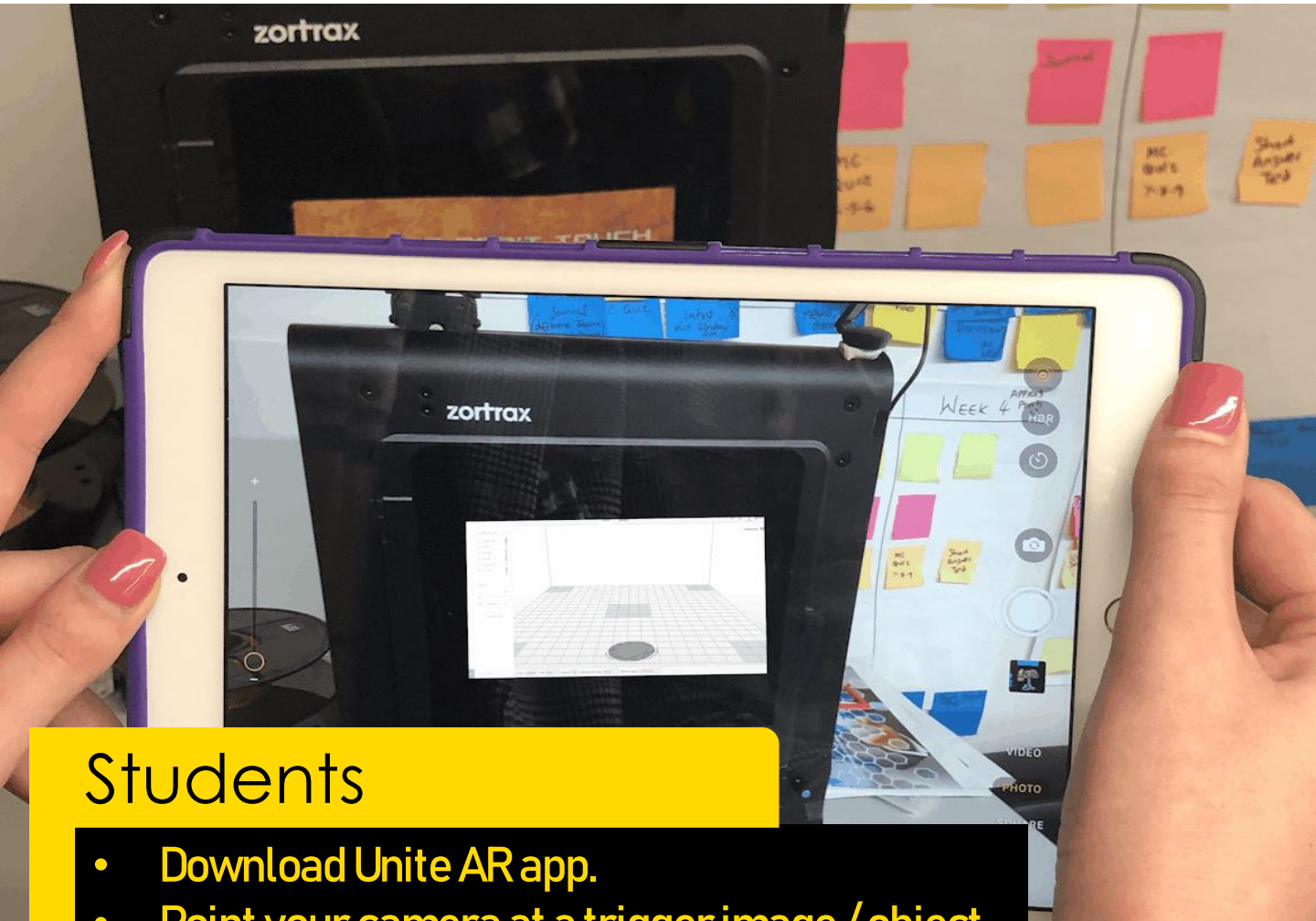
- Create an Unite AR account at <https://www.unitear.com/>

- Using the 'Editor' create a 'project'.


- Upload images which will act as 'trigger images' to reveal your multimedia content such as: 3D animated models, Uploaded videos or streaming Youtube, 360° images or videos, 2D Images, Audio files and Hotspots.

- Save & Publish your project, and let students interact & engage!

Unite AR

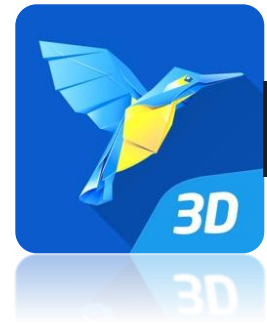


Students

- Download Unite AR app.
- Point your camera at a trigger image / object.
- Tap  Icon.
- Scan trigger images to reveal content.
- Now you are ready to explore and discover different AR experiences.

Mozaik 3D

Learning made fun with a suite of AR experiences that explores various fields of knowledge using your IOS & Android powered smartphone.



iPhone & iPad



Human body (male) 3D



mozaik3D - 3D Anima...



Four-stroke Otto engi...



Bacteria 3D



mozaBook



Acropolis Interactive 3D

Android



The Sun interactive



Four-stroke Otto en



Bacteria interactive



mozaik3D - Animati



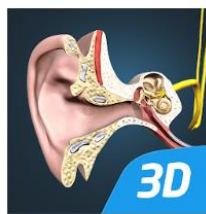
Human body (fema



Human bodyv (male)



Tvrannosaurus rex



The mechanism of



Acropolis Interactiv



Tower of London in

Metaverse



Create Magic In Your Classroom!

This platform and app allows you to build AR interactive experiences such as branching scenarios and case studies for your students to learn and enjoy.

Teachers:

Create an account at <https://gometa.io/>

Start creating various scenarios with a wide range of interactive components (3D animated models, Uploaded videos or Youtube links, 360° images or videos, 2D Images and Audio files)

Students

- Download the Metaverse app.
- Turn the sound on, Scan the QR code and have fun learning.

The Brain App



Gain amazing insight into the tissues, structures and areas of the brain by moving the device around the special artwork provided.

The three dimensional models are color coded to provide clear, concise and easy

to follow views of the brain.

The app provides an advanced and interactive view of the head and mind which is perfect for educational demonstrations, learning at home or just the enjoyment of finding out more about how our inner-selves work.

<https://www.harmony.co.uk/project/the-brain-in-3d/>

Activity:

Investigate the anatomical structure of the skull and brain.

- Aim your device at the target image (on the next page).
- Select **Skeleton** and **Brain** from the Left side menu to display these features.
- Zoom in and investigate the parts.
- To watch a clip about the brain click on the **VR icon** on the Right side menu.

the brain

AR Anatomy Series

Start the app
and point at
this page.



Use the icons
to view and
animate the
layers.



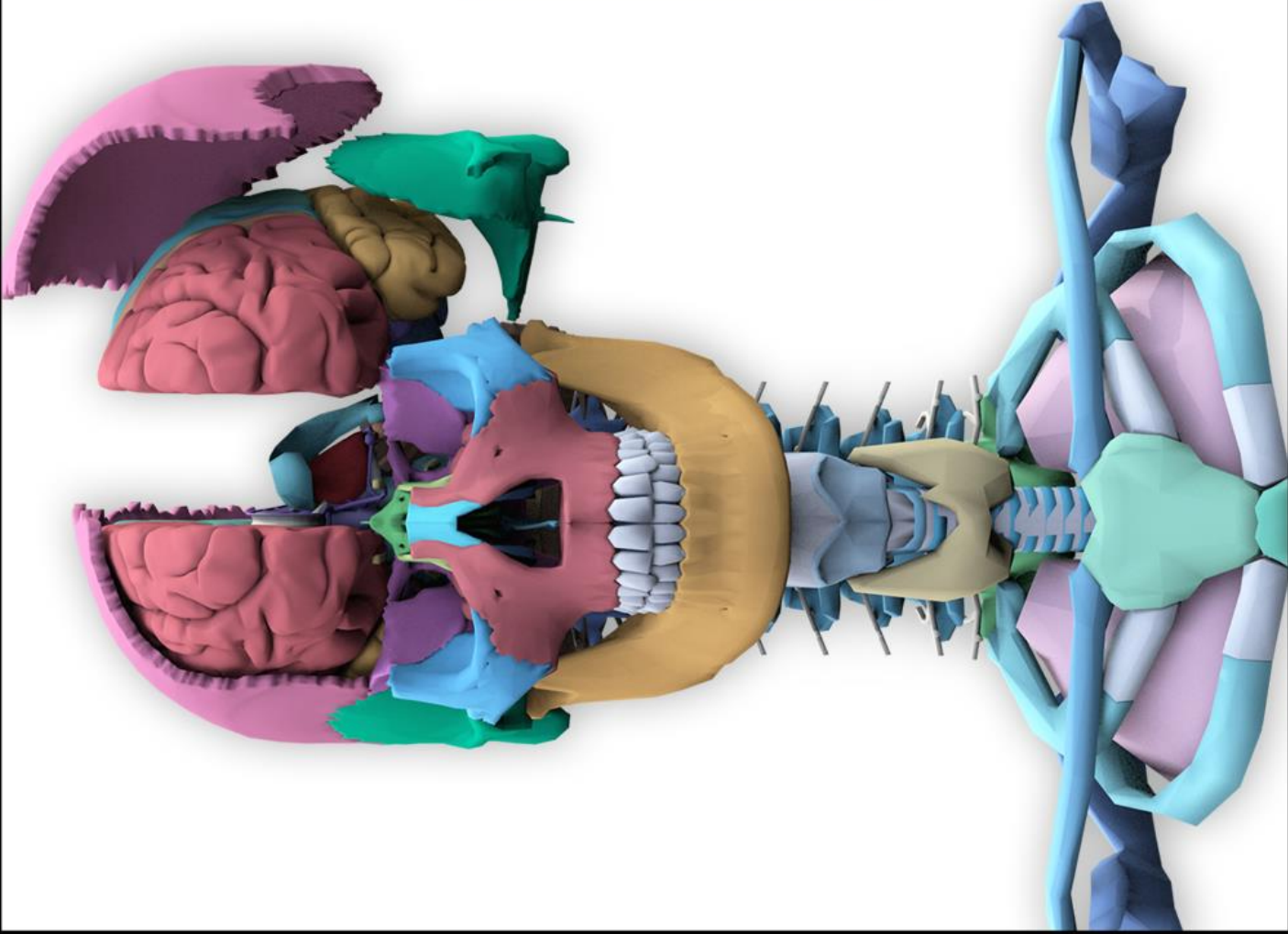
Touch parts of
the brain to
learn more.

Select 'Neuron'
to see inside
the brain.

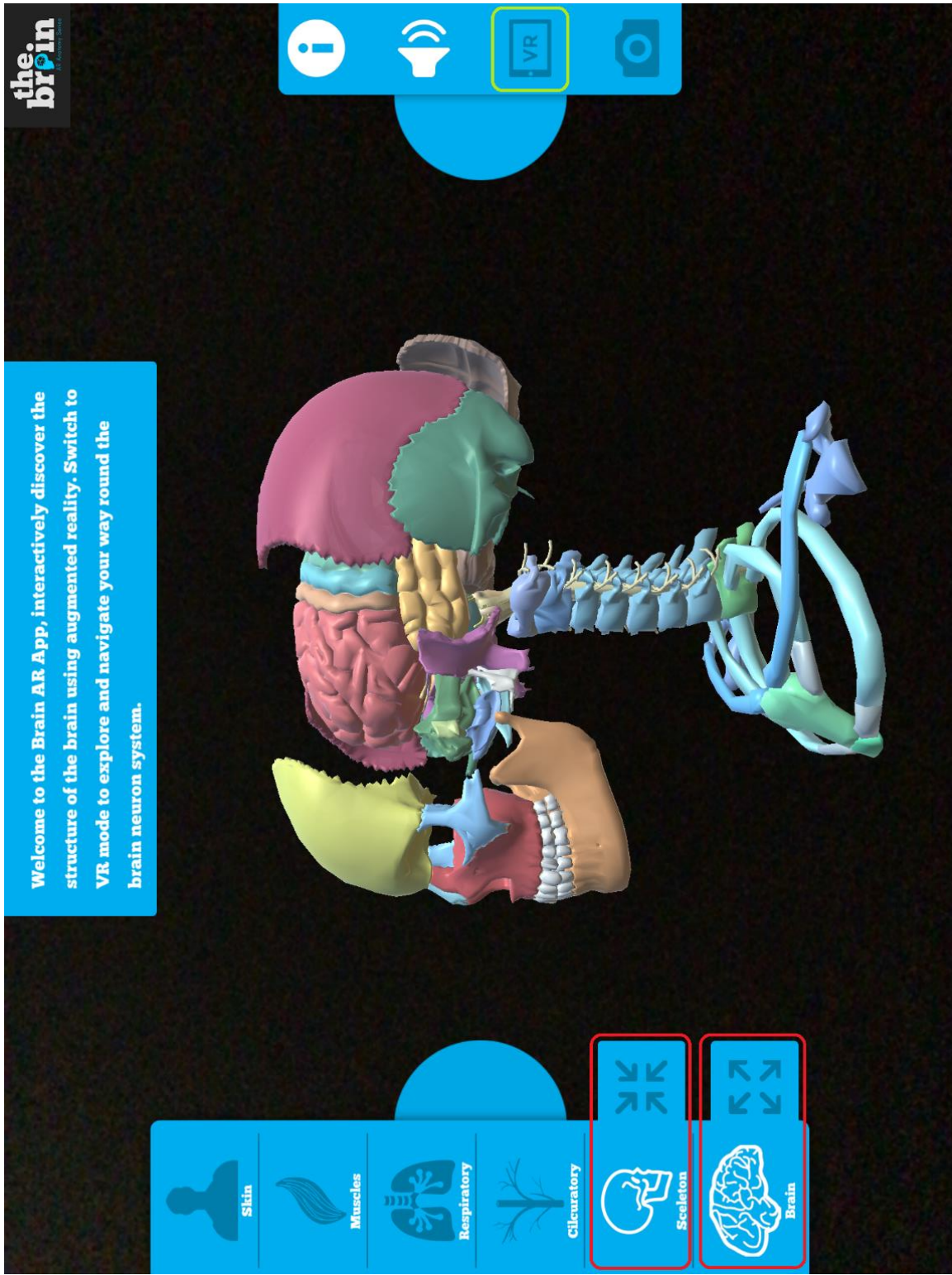
Audio by Sarah Benyon, Consultant Surgeon

Find out more at:

harmony.co.uk/brainapp

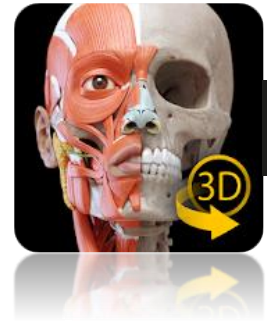


The Brain App



Muscle | Skeleton

3D Atlas of Anatomy



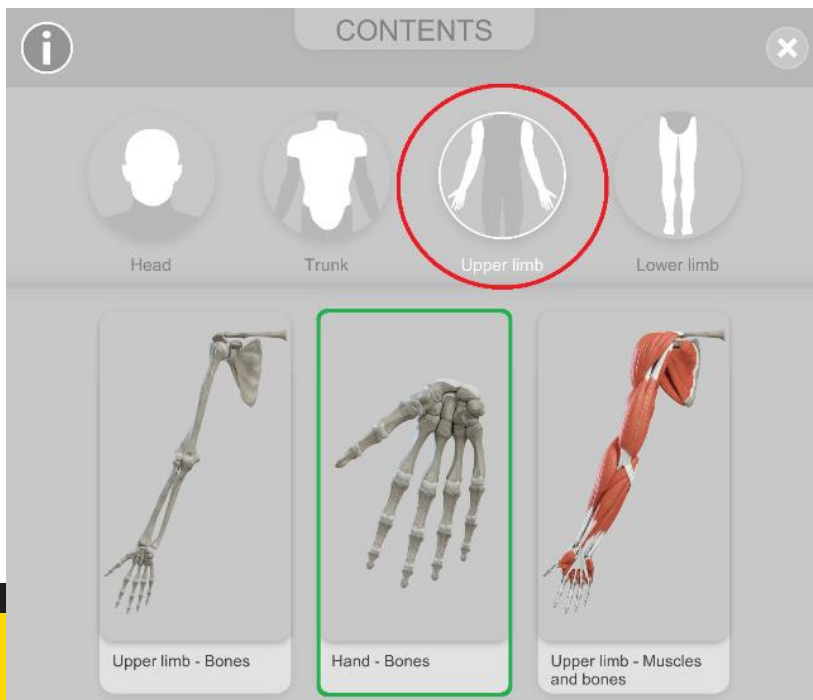
Suitable for investigating the anatomy and terminology of the :

- Skull and Mandible (free)
- Upper Limb Bones and Muscles (free)

Activity:

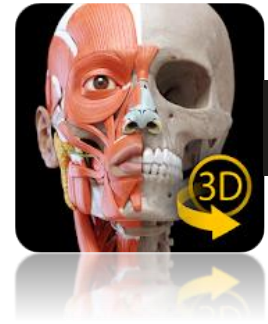
Use the app to investigate the anatomical terminology of the hand, explore. Students who speak a language another language can display the terminology in 2 languages

1. In the contents page, select the 'Lower Limb'



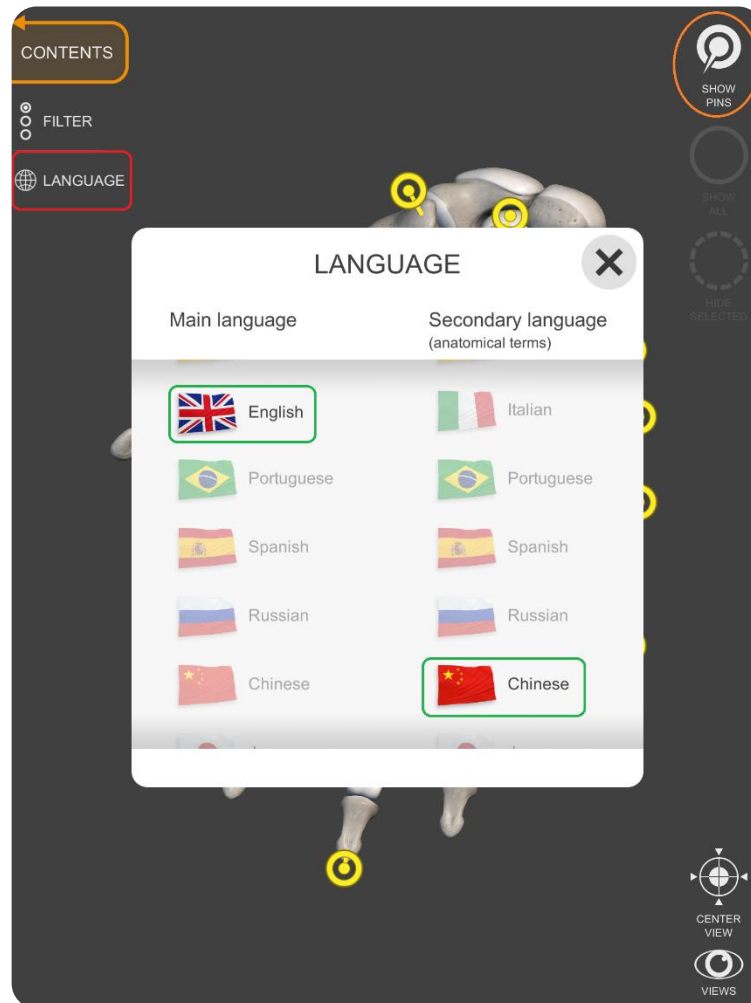
Muscle | Skeleton

3D Atlas of Anatomy



Activity:

2. Click on **Language** and select your Main Language & Secondary Languages.
3. Click on **Show Pins**, then click on the individual pins to display the terminology in both languages.
4. Navigate around the bones investigating the different terminology



Astronomy

You don't need to be an astronomer to find stars or constellations in the sky, just open SkyView® Free and let it guide you to their location and identify them.



SkyView Free is a beautiful and intuitive stargazing app that uses your camera to precisely spot and identify celestial objects in sky, day or night.

Find popular constellations as they fade in and out while you scan across the sky, locate planets in our solar system, discover distant galaxies, and witness satellite fly-bys.

Astronomy



Activity:

Explore the constellations and find where the International Space Station currently is.

1. Point your device at the sky to identify galaxies, stars, constellations, planets, and satellites (including the ISS and Hubble) passing overhead at your location.
2. Sky Paths: Follow the sky track for any object to see it's exact location in the sky on any date and time.

Social: Capture and share beautiful images with friends and family on social networks.

Mobile: WiFi is NOT required (does not require a data signal or GPS to function). Take it camping, boating, or even flying!

Supports Space Navigator™ binoculars, spotting scope, and telescopes.



Measurekit

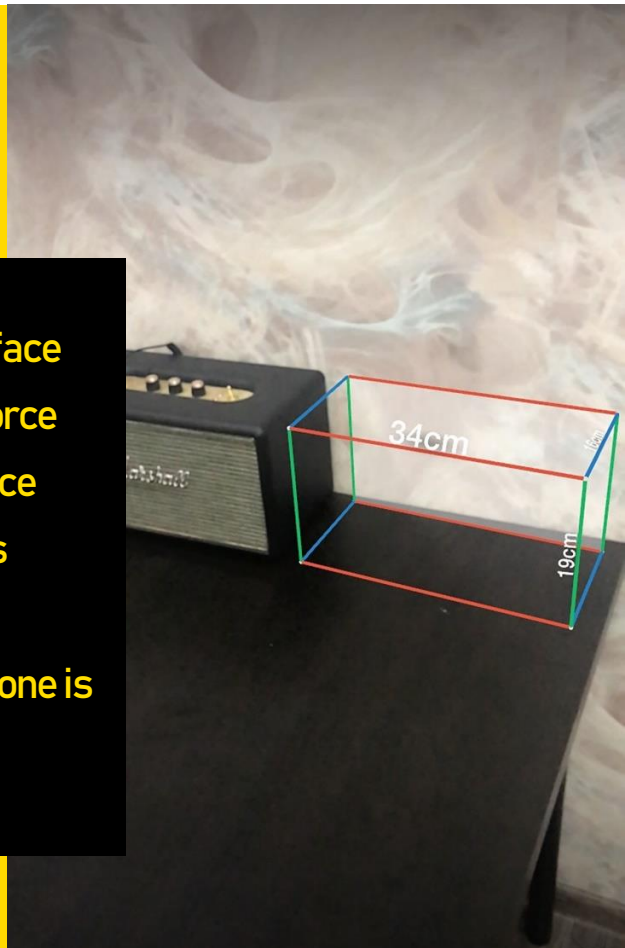
The ultimate measuring ToolKit for your phone or tablet. Now anytime, anywhere you have not only a tape measure but a whole set of tools to let you measure almost anything.




<https://measurekit.com/>

Measurekit features 8 different tools:

- Ruler: Measure a straight line on a surface
- Magnetometer: Measure a Magnetic Force
- Trajectory: Measure by drawing in space
- Marker Pin: Measure distance to points
- Angles: Measure corners and angles
- Person Height: Measure how tall someone is
- Cube: Visualise how big something is
- Level: Check if something is straight



 **34x19x16cm** (13x7x6")

 34x19x16cm (13x7x6")

Virtual Reality



Activity:

- Search for VR video on Youtube:
360° Guided Tour of the Cell
<https://youtu.be/rKS-vvhMV6E>
- Click on 
- Slot phone into VR goggles.
- Have 2 friends near by ready to stop you walking into things!

List of featured & other **AR / VR tools**



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Muscle|Skeleton



TheBrainARApp



VR BodyGuide



HP Reveal



Hologo



Technique



SkyView Lite



YouTube



Quiver



Flexpod® AR



Metaverse



MeasureKit



Civilisations AR



Holo



Human Brain



JoGool Trainer

References



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