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Let's Face It

Exploring the dark side of iPhone X Face ID.

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Dot projector

Front Camera

Microphone

Speaker

Light sensor

Infrared Camera
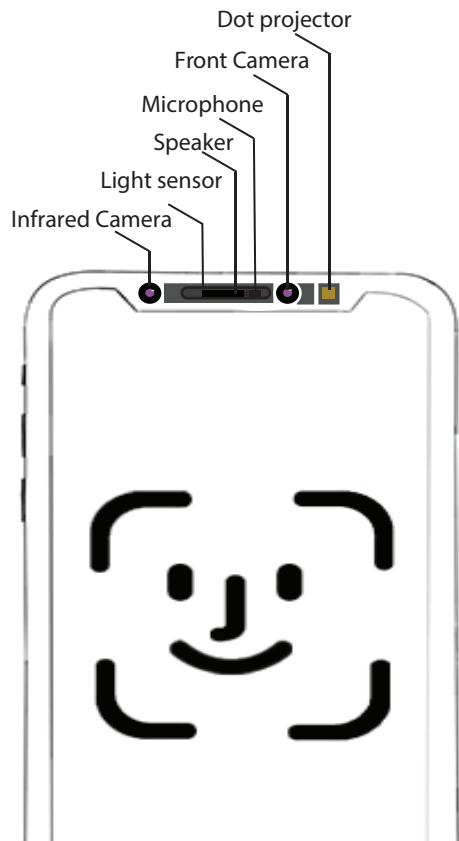
When thinking of simpler ways that a phone could be unlocked, many might think of a simple finger print touch, however Apple's recent launch of iPhone X includes a replacement of the Touch ID with a facial recognition feature that unlocks the phone, makes many regular users of iPhone quite wary of its security and accuracy in many ways.

So just how secure is the use of a face ID, that so many people claim to be the easy option to access a phone?

Investigating further into this new method of unlocking iPhones, it is shown that the feature of the face ID is a 3D scanner that is installed inside the iPhone, that also includes an infrared projector which projects up to 30,000 dots that help map out one's face and head shape. Just a year after the iPhone X feature was implemented in the phone, concerns started to be raised that stone powder can replace paper tape to trick Face ID. How could this possibly happen, some may ask?
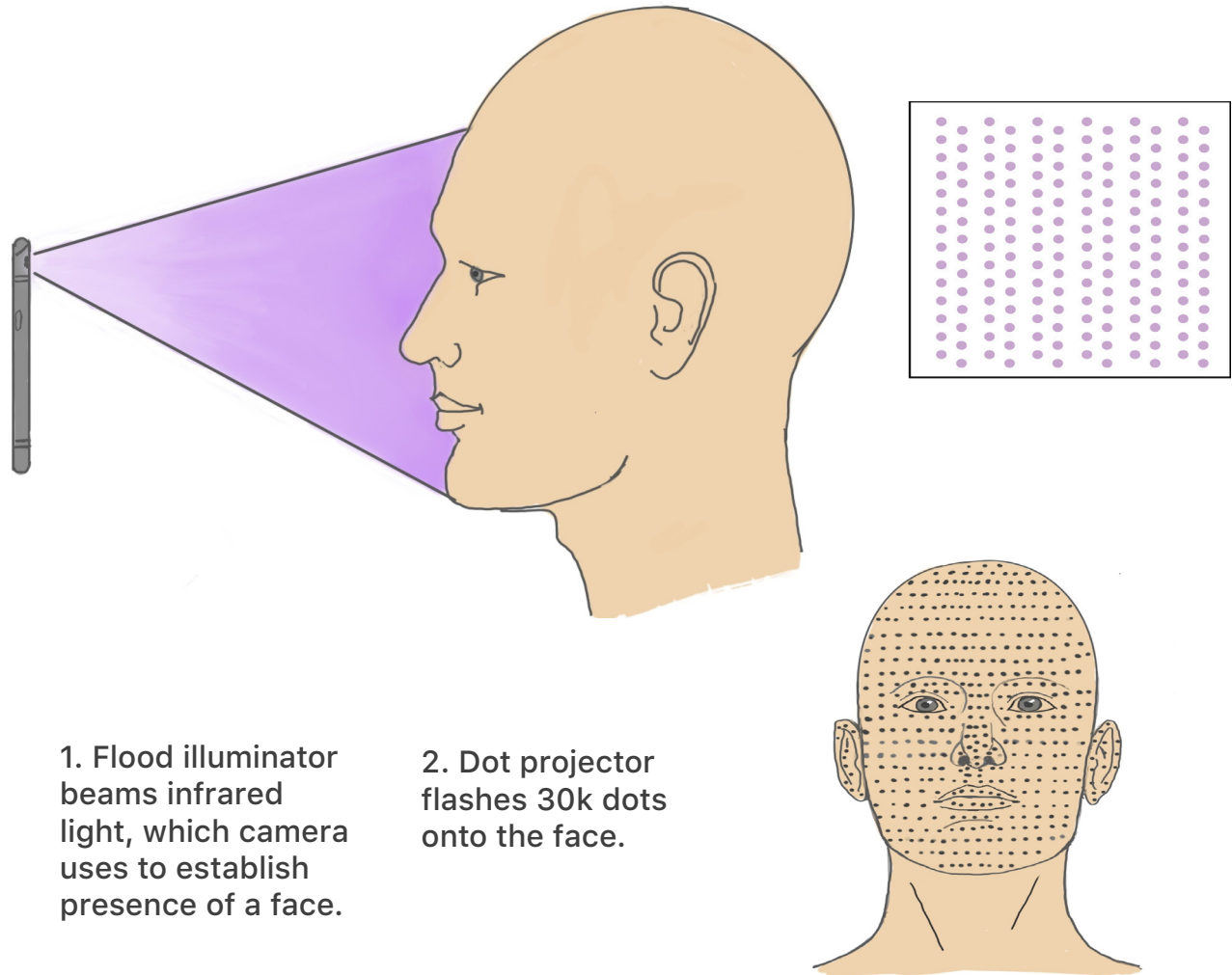
To truly test the security of a Face ID, researchers utiwlised a new mask made for approximately $200 using materials such as stone powder and a 3D printer – which should be within reach by most people, then they shot a video showing the iPhone X unlock for it. This essentially meant that the Face ID is far less secure than Touch ID as images of a person can be taken from afar and used to create a mask to unlock the phone.

To further notice just how unprotected you may feel whilst using a face ID consider this, one day you decide to be walking to your favourite spot to a park where there's only one single shady bench to sit on. You ponder about, flick through your brand new iPhone X, when you suddenly feel an unsettling presence near you. Perhaps you are just imagining, but you know deep down that there is somebody out there and then you look into a distance spotting a person you noticed looking at you at work on a daily basis taking a photo of you but before

How Face ID works?

you know it that same person disappears before your eyes, them now able to create an artificial mask that for all you know could hack your brand new iPhone X. But hey, at least you bought the new iPhone...

However despite the number of different complaints and concerns of the Face ID feature, many have still found this feature to be quite reliable and convenient. Most find it beneficial that the Face ID uses machine learning, so that it can learn from changes to one's face over time. There is also a hard-to-break layer of security which keeps one's iPhone safe and, like Touch ID, one can bypass Face ID by using a pass code.

1. Flood illuminator beams infrared light, which camera uses to establish presence of a face.

2. Dot projector flashes 30k dots onto the face.

References:

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[Youtube Video]
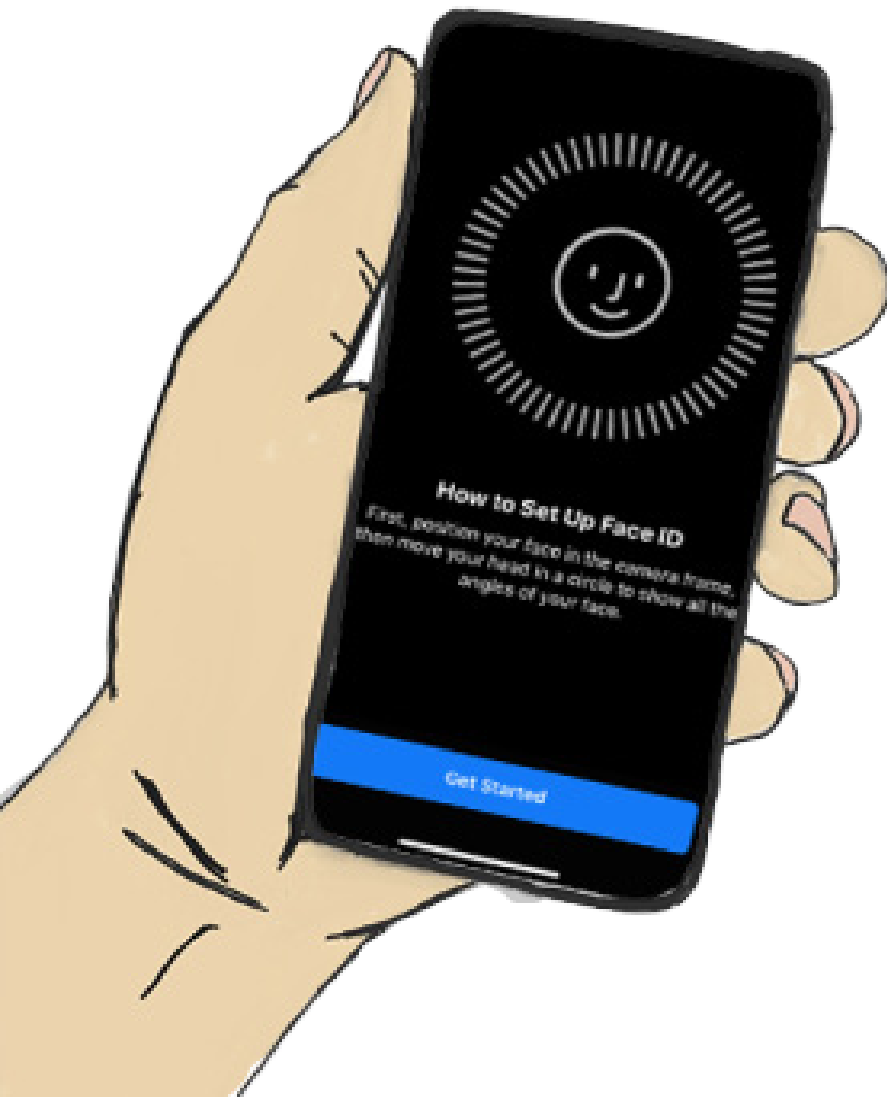Marshall, G. (2017). Face off: Why critics fear Face ID. MacFormat, (320), 15-17.
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Set Up Face ID

1. Go to Settings > Face ID & Passcode. If asked, enter your passcode.

2. Tap Set Up Face ID.

3. Make sure that you're holding your device in portrait orientation, position your face in front of your device, and tap Get Started.

4. Position your face inside the frame and gently move your head to complete the circle. If you're unable to move your head, tap Accessibility

5. Options.

6. When you finish the first Face ID scan, tap

7. Continue.

8. Gently move your head to complete the circle for a second time.

9. Tap Done.