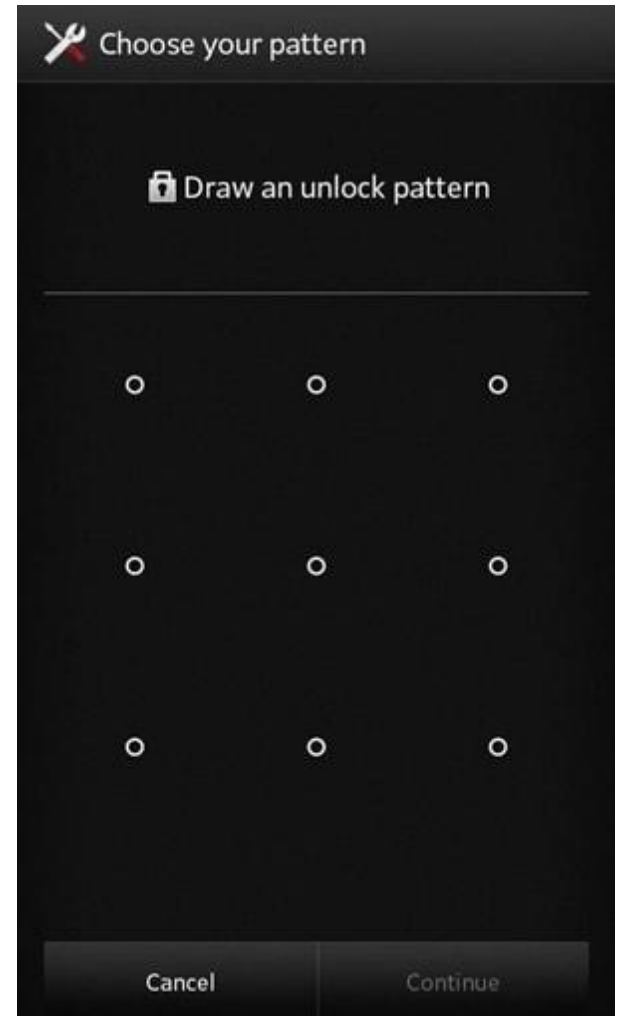


Pattern Lock is a security measure that protects devices, such as mobile phones or tablets, and which is preferred by many to PIN codes or text passwords.

The best part of a pattern lock is that there are many different options, and it can be difficult for hackers to guess your pattern. Say you start at the middle circle and then move around the phone to connect to 5 other circles. This means that there are 6 different points in your pattern.



The popular Pattern Lock system used to secure millions of Android phones can be cracked within just five attempts – and more complicated patterns are the easiest to crack, security experts reveal.

Pattern Lock is a security measure that protects devices, such as mobile phones or tablets, and which is preferred by many to PIN codes or text passwords. It is used by around 40 per cent of Android device owners.

In order to access a device's functions and content, users must first draw a pattern on an on-screen grid of dots. If this matches the pattern set by the owner then the device can be used. However, users only have five attempts to get the pattern right before the device becomes locked.

New research from Lancaster University, Northwest University in China, and the University of Bath, which benefitted from funding from the Engineering and Physical Sciences Research Council (EPSRC), shows for the first time that attackers can crack Pattern Lock reliably within five attempts by using video and computer vision algorithm software.

By covertly videoing the owner drawing their Pattern Lock shape to unlock their device, while enjoying a coffee in a busy café for example, the attacker, who is pretending to play with their phone, can then use software to quickly track the owner's fingertip movements relative to the position of the device. Within seconds the algorithm produces a small number of candidate patterns to access the Android phone or tablet.

Researchers evaluated the attack using 120 unique patterns collected from independent users. They were able to crack more than 95 per cent of patterns within five attempts.

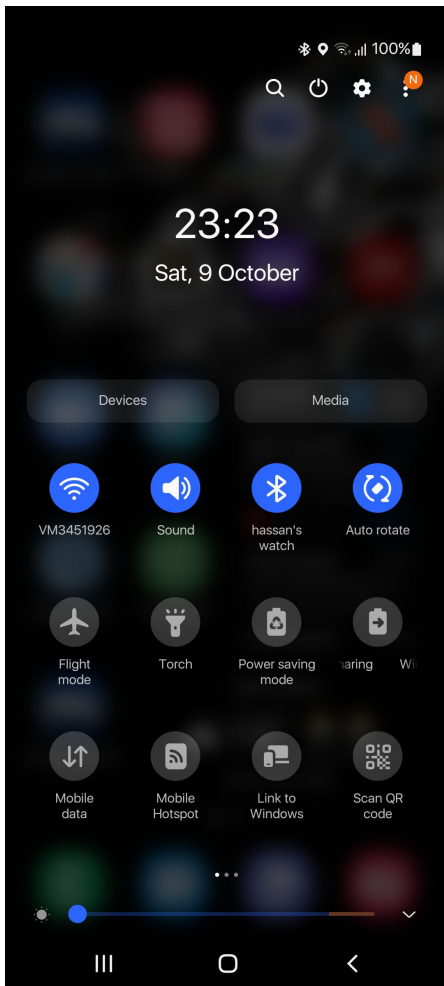
Complex patterns, which use more lines between dots, are used by many to make it harder for observers to replicate. However, researchers found that these complex shapes were easier to crack because they help the fingertip algorithm to narrow down the possible options.

During tests, researchers were able to crack all but one of the patterns categorised as complex within the first attempt. They were able to successfully crack 87.5 per cent of median complex patterns and 60 per cent of simple patterns with the first attempt.

Never use a pattern password

Android users have the ability to choose a pattern password to unlock their phone instead of a passcode, a password or a PIN. But it turns out that this is the least secure way of locking your phone

It's time to make the pattern lock into the simplest form



1. Use your notification bar icons like a pattern lock
2. Disabling the functions of notification icons in lock screen
3. No more working functions until you turn the screen on
4. It's time to upgrade to next level of privacy
5. No one guess the where pattern were
6. Looks simple

