**Pre-questionaire:**

* 2 What kind of unlocking method

Add knock code

* format
* personal information: gender, age range, how often use watch or phone what kind of phone (android or iOS?) left-handed or right-handed

**practice**

enlarge effective region

android make it disappear after inputting

ask the participant to put the phone on his or her waist

rotate the view

collect more data for each case (increase to 20)

reduce the number of shoulder surfing cases (5 to 10)

shoulder surfing too simple

increase the difficulty of patterns gradually for shoulder surfing

圆形排布顺序 顺时针或逆时针

shoulder surfing video 录像移动的时候不要输密码 时间间隔固定 5s

记数字密码的时候让他们画出来 带箭头 带顺序

提示密码放在同一position

键盘显示consistent

same platform

postquestionaire

那个pattern 好 画出来给他们看

4 what is disadvantage

6以后 让他们从几个里面选 不要打分

debriefing 问他们简单的问题 any suggestion