

Seismo:

Measuring systolic blood pressure using your phone

Artur Solomonik and Pia Fichtl

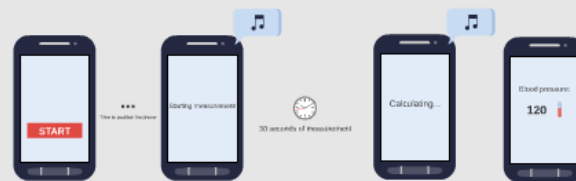
Blood Pressure

- 2 numbers: systolic & diastolic
- systolic = maximum during one heart beat
- diastolic = minimum between two beats
- measure systolic: document when the heart pumps out blood and when it arrives at the finger tip
- usually measured in mmHg

Implementation

- use accelerometer to measure heart beats
- use back camera with flash to see dilation of artery at the finger
 - measure red and green color values
 - find the mean of each frame to see changes at the artery
- we need to sync heart beat & finger tip

Mock Up



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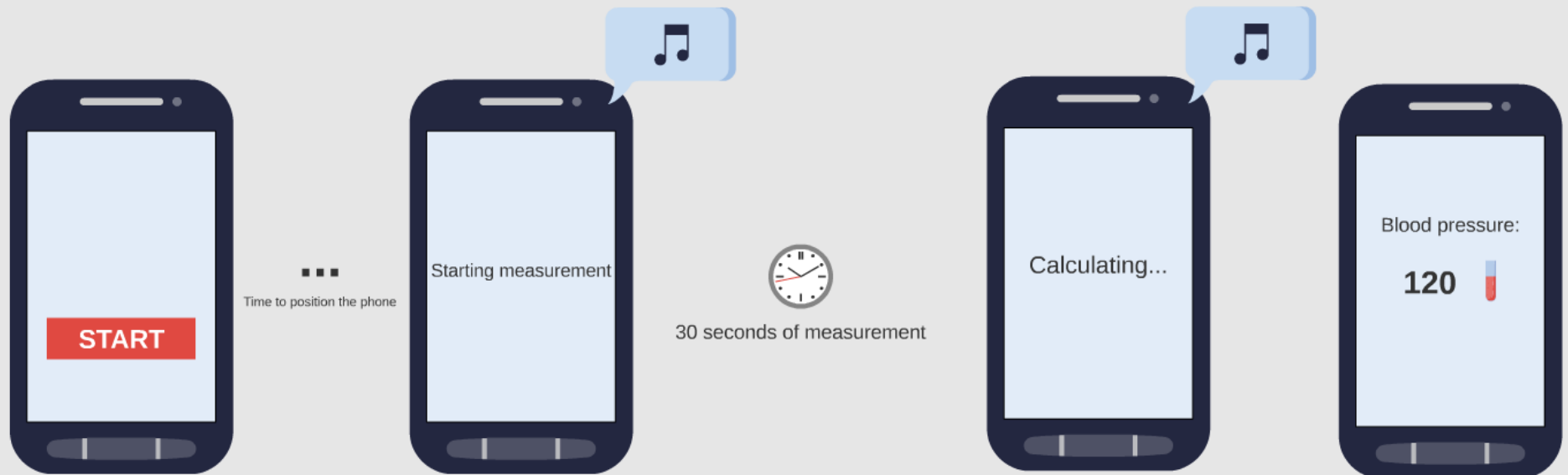
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