

Bzzzt

When Mobile Phones Feel At Home

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Phone senses surfaces via vibration

Explorative Material Study

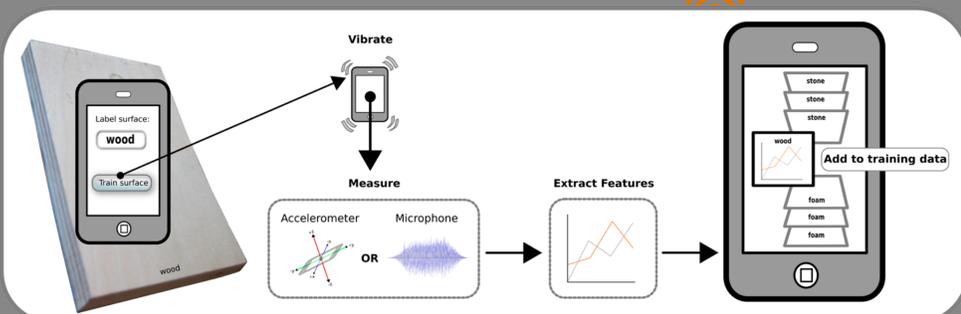
Three different sketches, using different approaches to distinguish surfaces.

Sketch	Measurement		Classification		# Classified Surfaces	Platform
	Accelerometer	Microphone	SVM	"Peak-Key"		
One	●		●		>2	Samsung Galaxy S, Android 2.3.3
Two	●			●	=2	LG Optimus 2X, Android 2.3.4
Three		●	●		>2	iPhone 4S, iOS 5

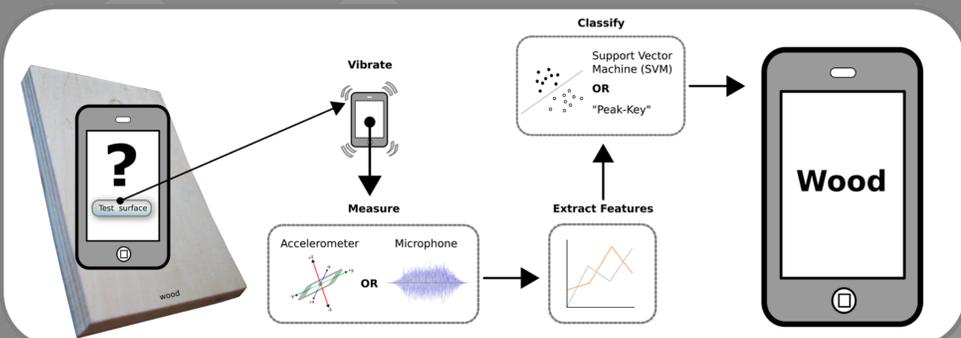
Your smart phone senses the surface it lays on. It vibrates and measures the response of the surface at the same time. Then different approaches are used to classify and distinguish between vibration patterns.

Just try it out!

Train:



Test:



Application ideas

Phone Finding, Gaming, Authentication (to be tested)

Further work

- More exploration to refine the techniques and the detection rate. Try combinations of different recognition techniques and test them for enhancement.
- The approach of authentication needs to be tested for accuracy.

More Info: susi-stadler.at/bzzzt



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