

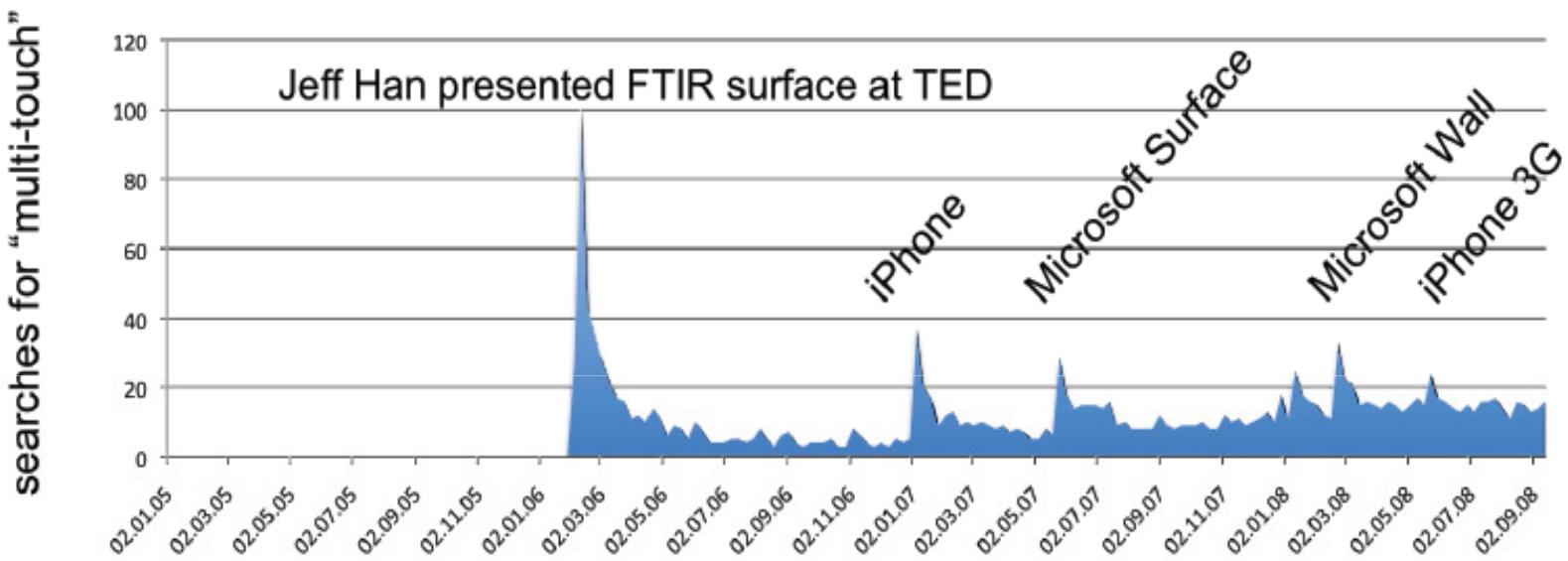
# Multi-touch Surface



# Content

- Introduction
- Current progress
- Future work

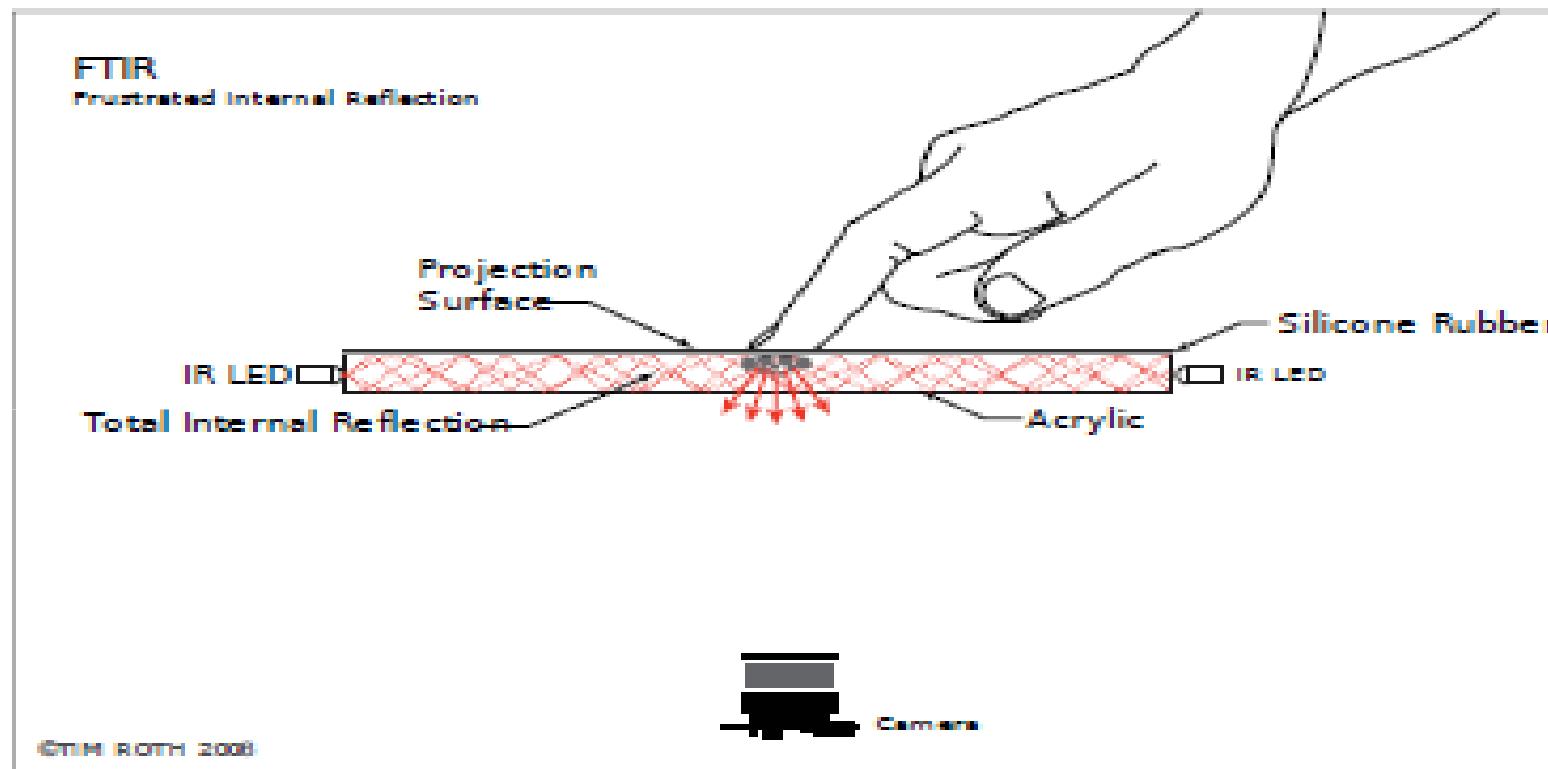
# Introduction



**Figure 1** The popularity of the search terms “multi-touch” from 2005 to 2008 analysed with Google Trends and with different main events labeled

(Schöning et al, 2008)

# Introduction



**Figure 2 General set-up of a Frustrated Total Internal Reflection (FTIR) system (Schöning *et al*, 2008)**

# Current Progress

- Remove infrared (IR) filter from the camera



Figure 3 Camera we got in the lab

# Current Progress

## □ LED strips

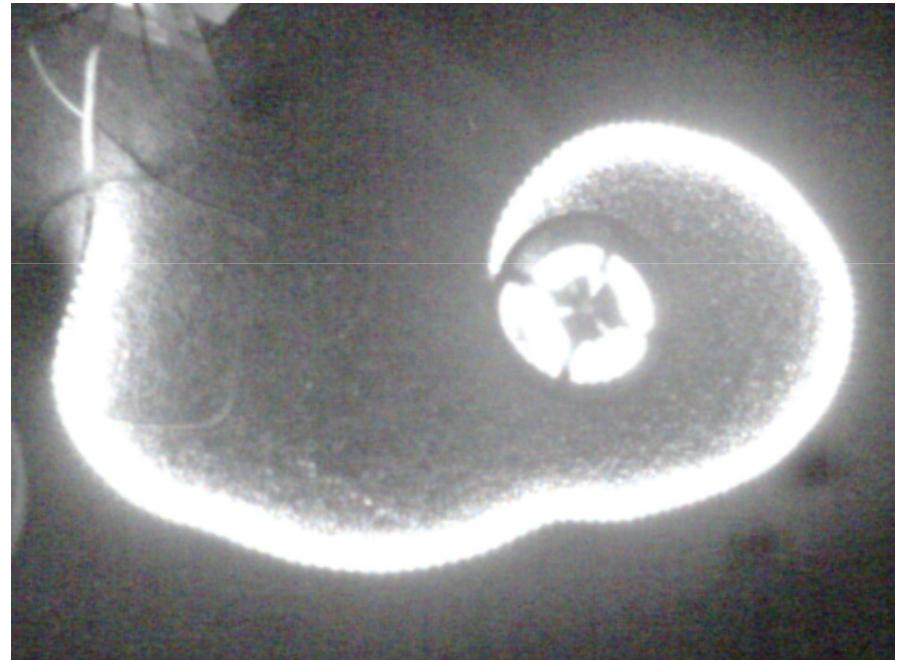


Figure 4 LED strip

# Current Progress

## □ Drive and protect LEDs

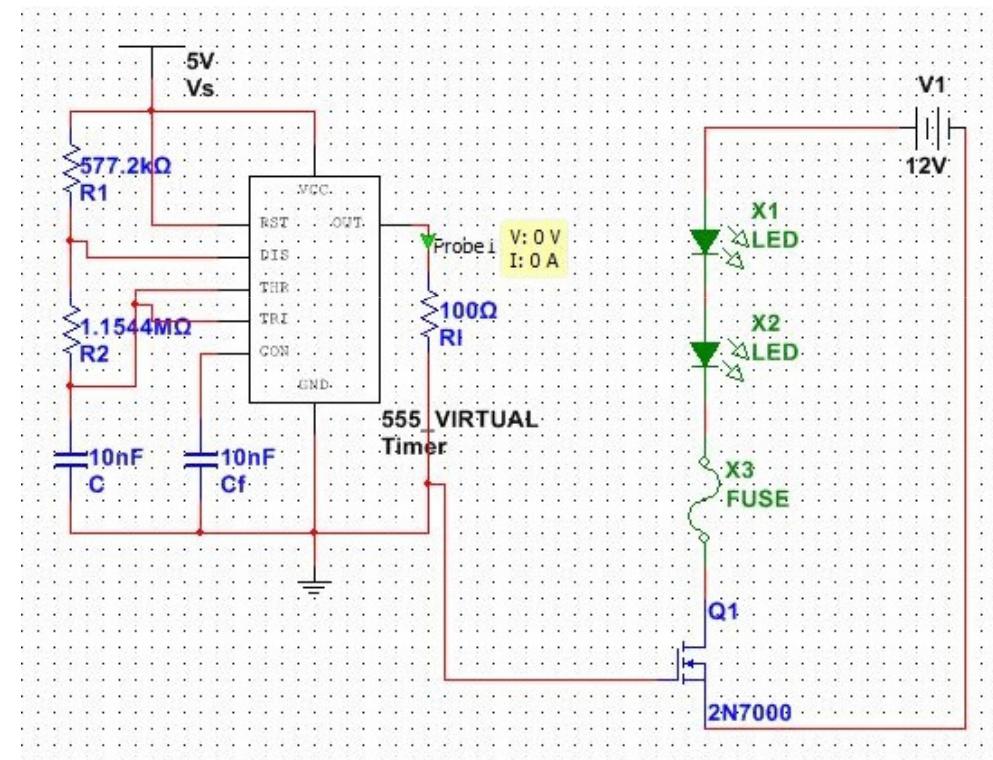


Figure 5 Circuit for driving and protecting LEDs

# Current Progress

- Three layers of touch screen and frame

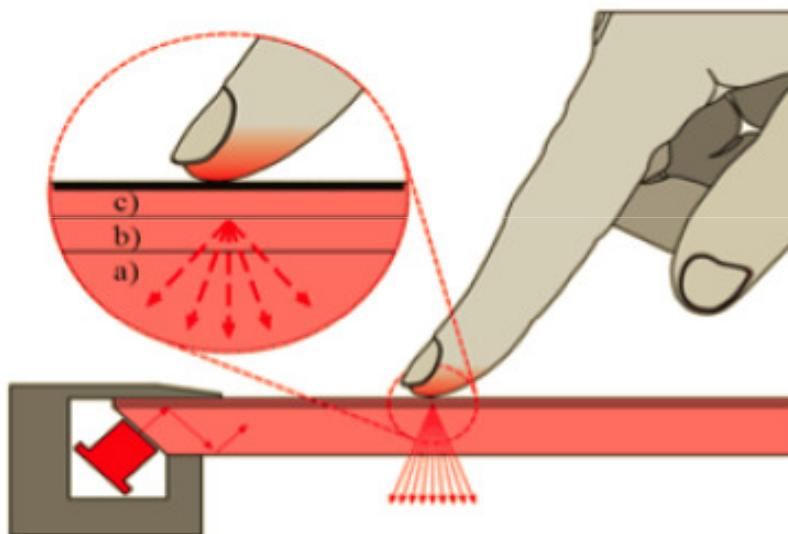


Figure 6 (LEFT) The three layers needed to track figure touches. Left: the polycarbonate plate (a) is covered with a compliant surface layer (b) and a diffuse layer (c). (RIGHT) The three layer in order

# Current Progress

## □ Software



Figure 7 CCV (Community Core Vision) interface

# Current Progress

- Multi-touch system

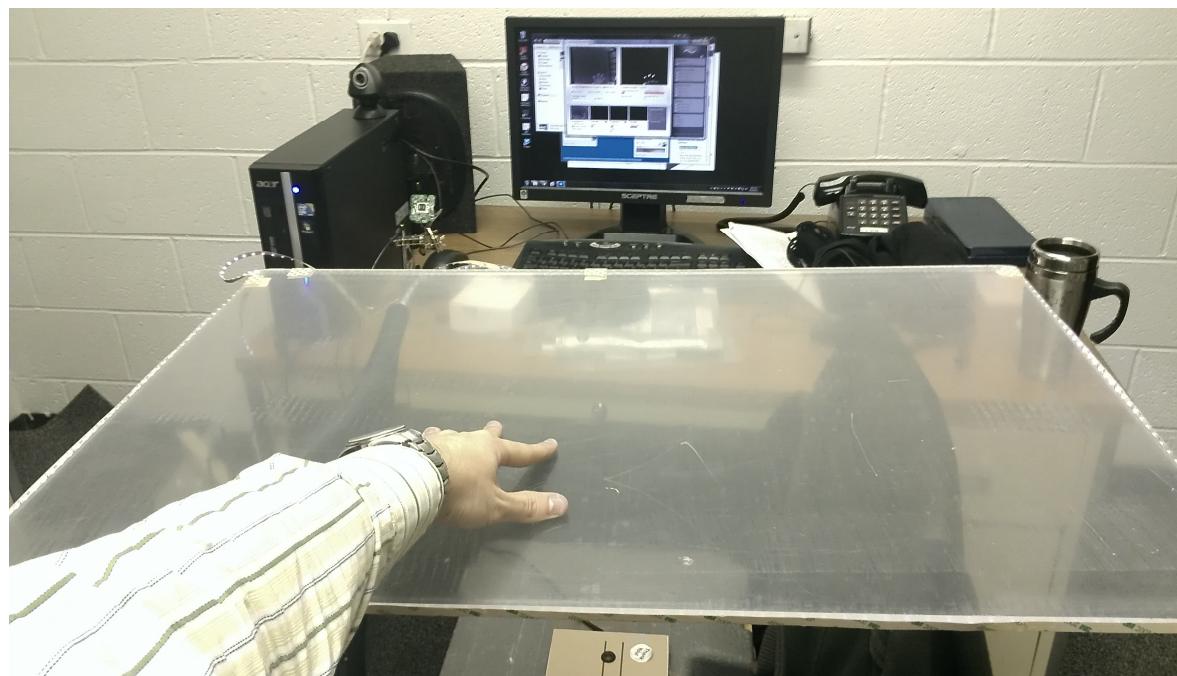


Figure 8 Current multi-touch system

# Future work

- Hardware:
  - Build a frame to fix the screens together
  - Build the electric circuit to protect LEDs
- Software:
  - Correctly compile the source codes
  - Achieve the human-computer interaction
  - Design and implement the new object detection or tracking algorithms

# Thanks!

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