



ooBar

PROJEKTPRÄSENTATION SS09

ds064 | fp007 | tg037 | ps044



idea

sponsoring



322

Medieninformatik

Prof. Dr. Jens Uwe Hahn
Prof. Dr. Walter Kriha

sponsoring + support

329

Medieninformatik

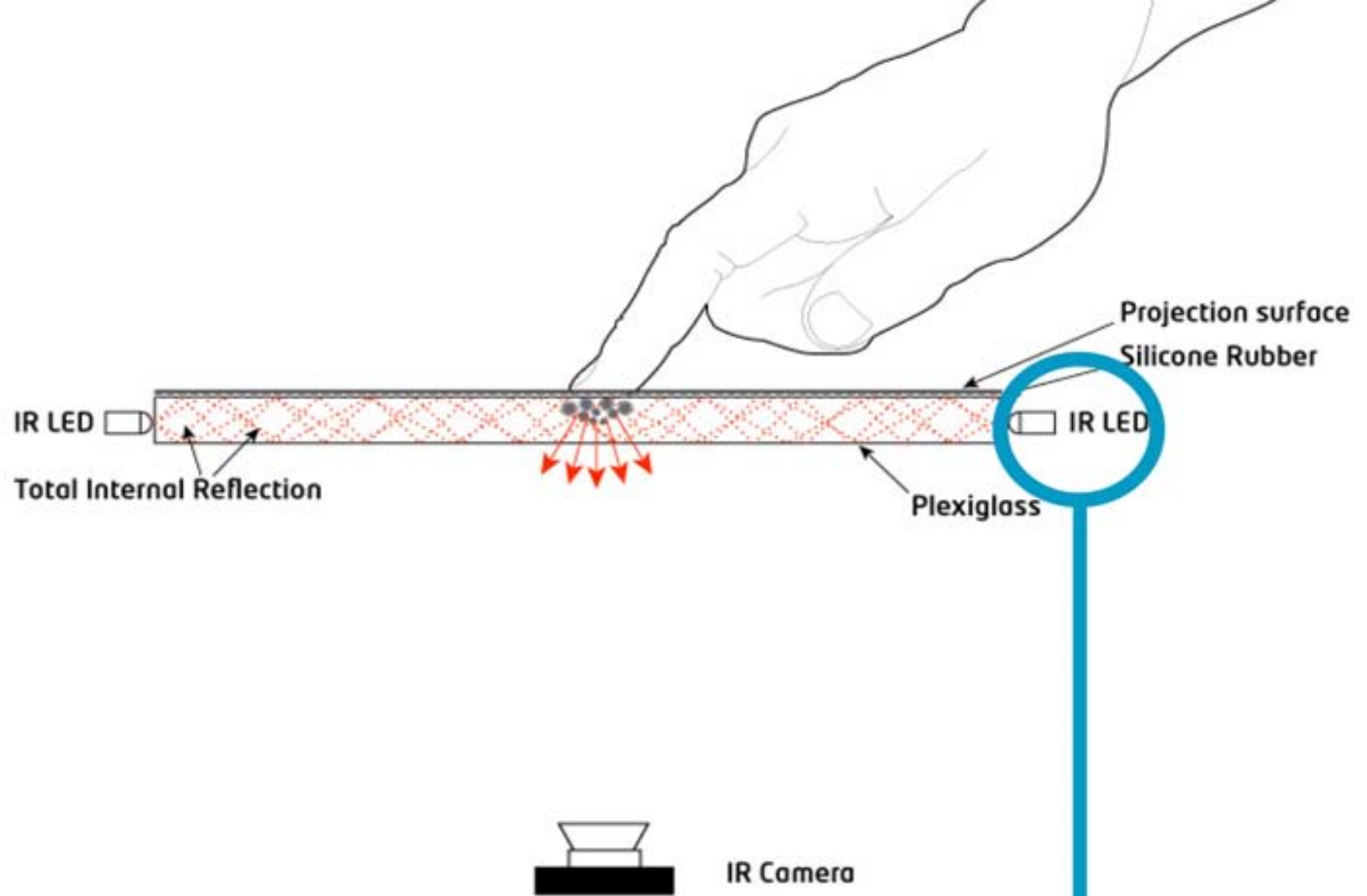
Günter van der Kamp

Beate Schlitter

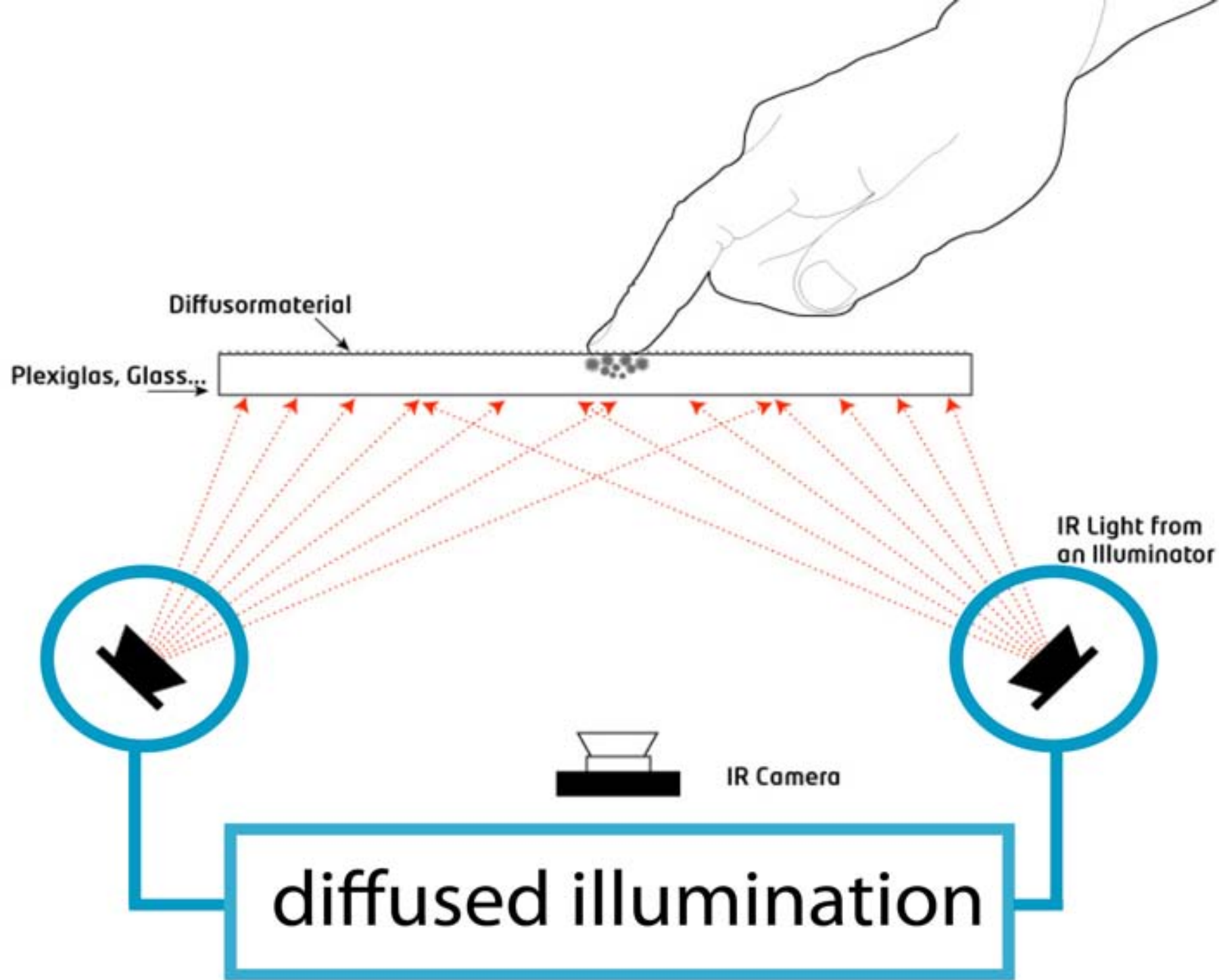
Björn von Prollius

Oliver Kögler

sponsoring + support



frustrated total internal reflection





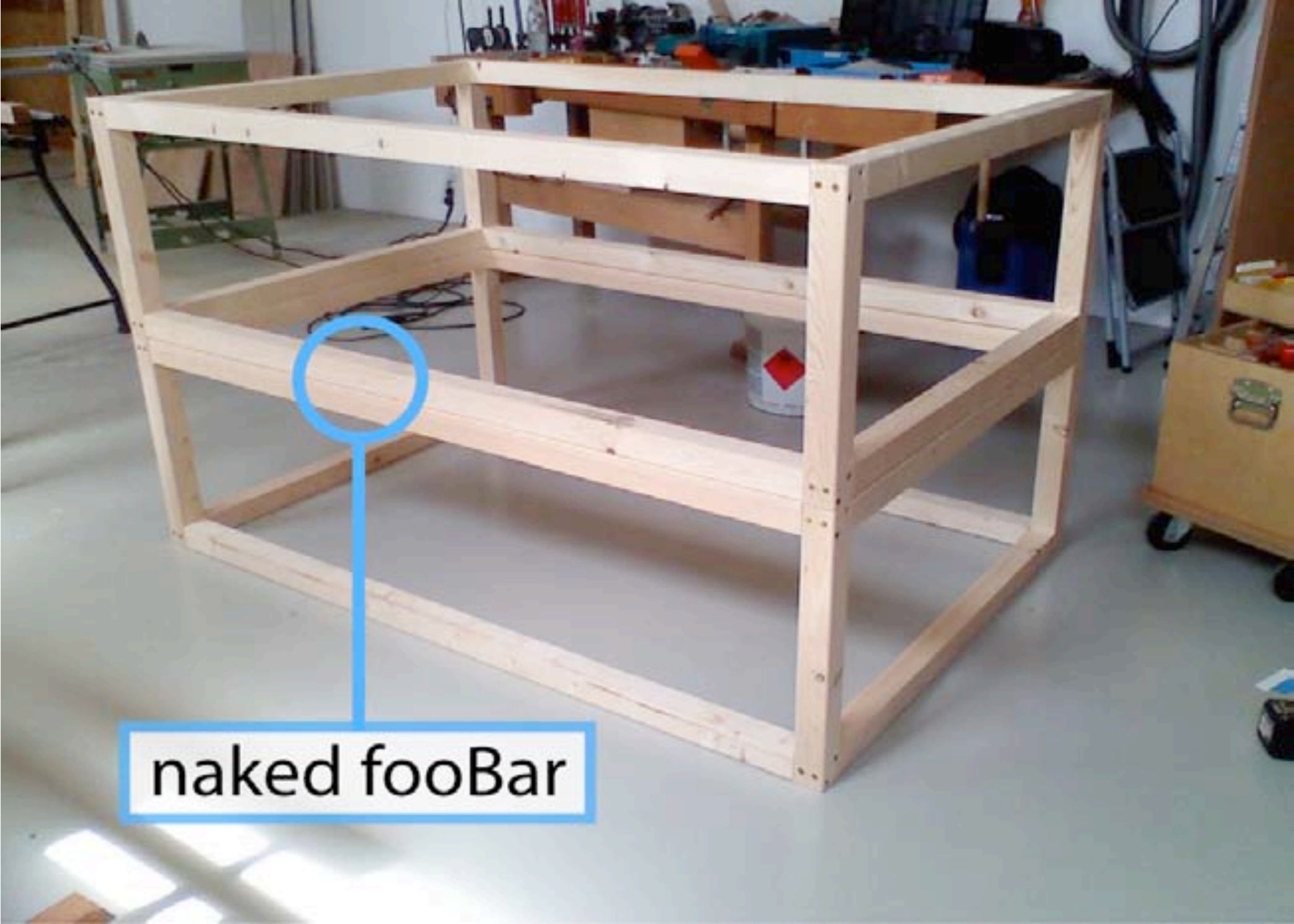
Projektionsfolie
Plexiglas

FTIR LEDs
DI LEDs

Cam
Beamer

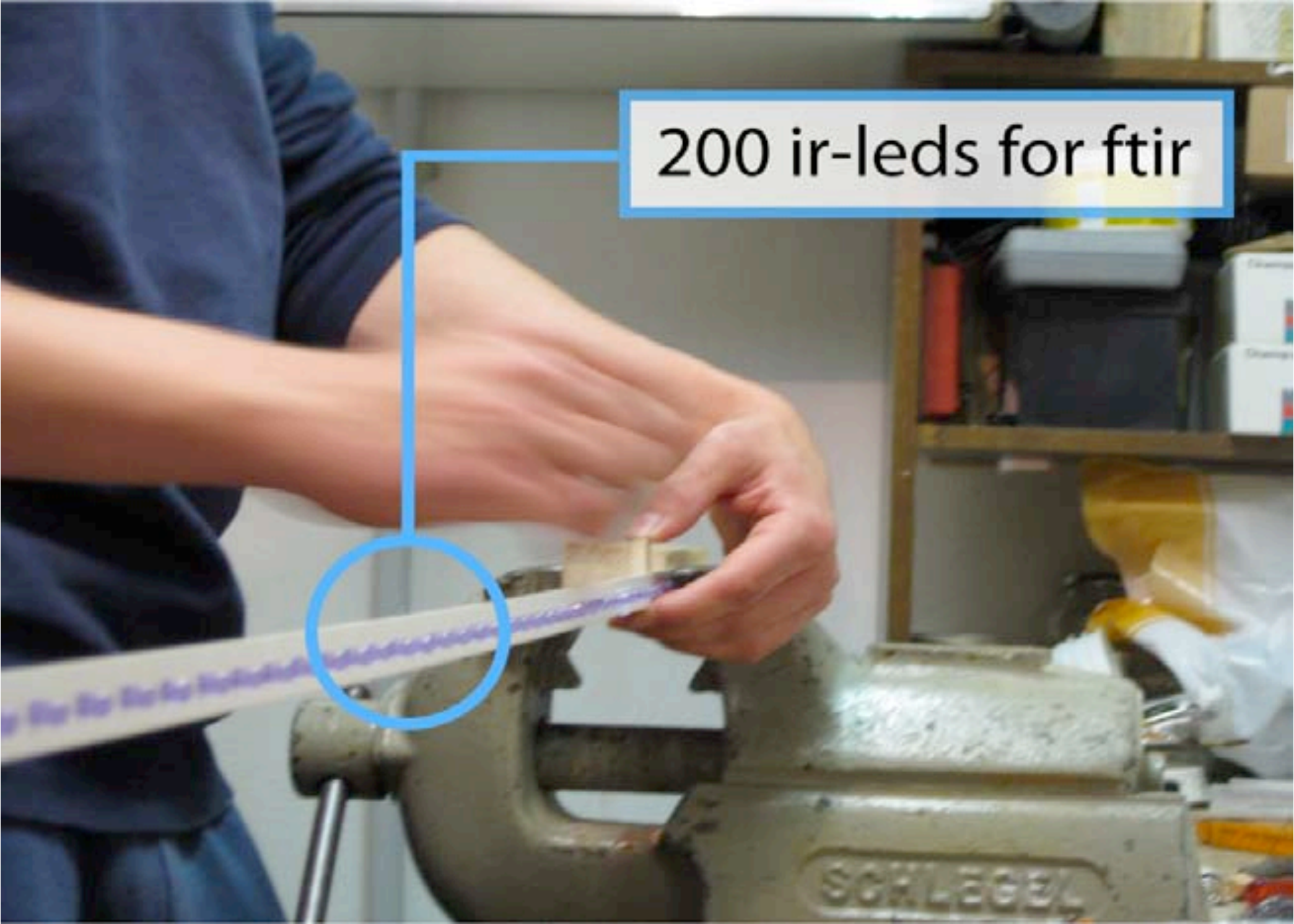
Spiegel

profile



naked fooBar

200 ir-leds for ftir

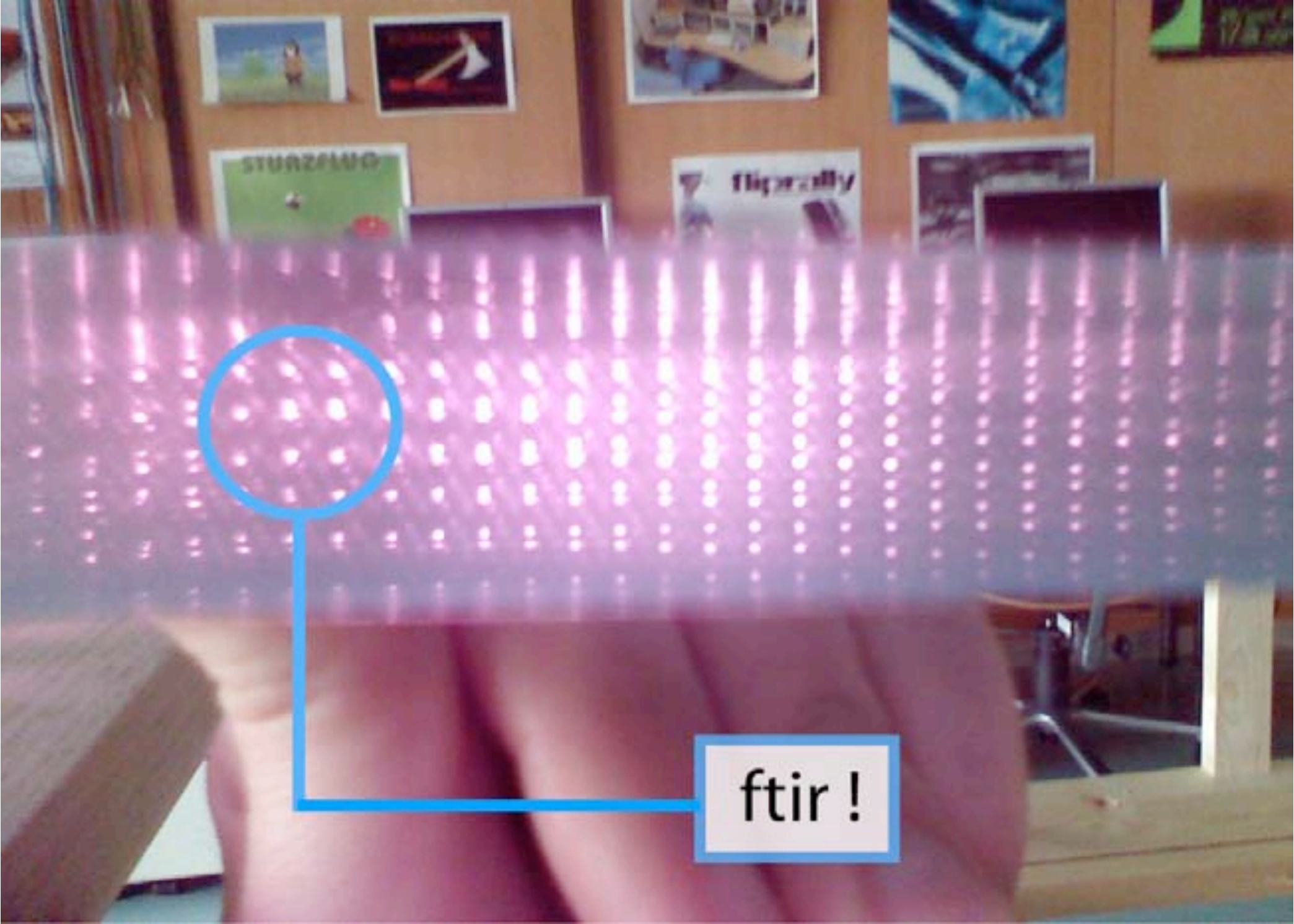




wired!



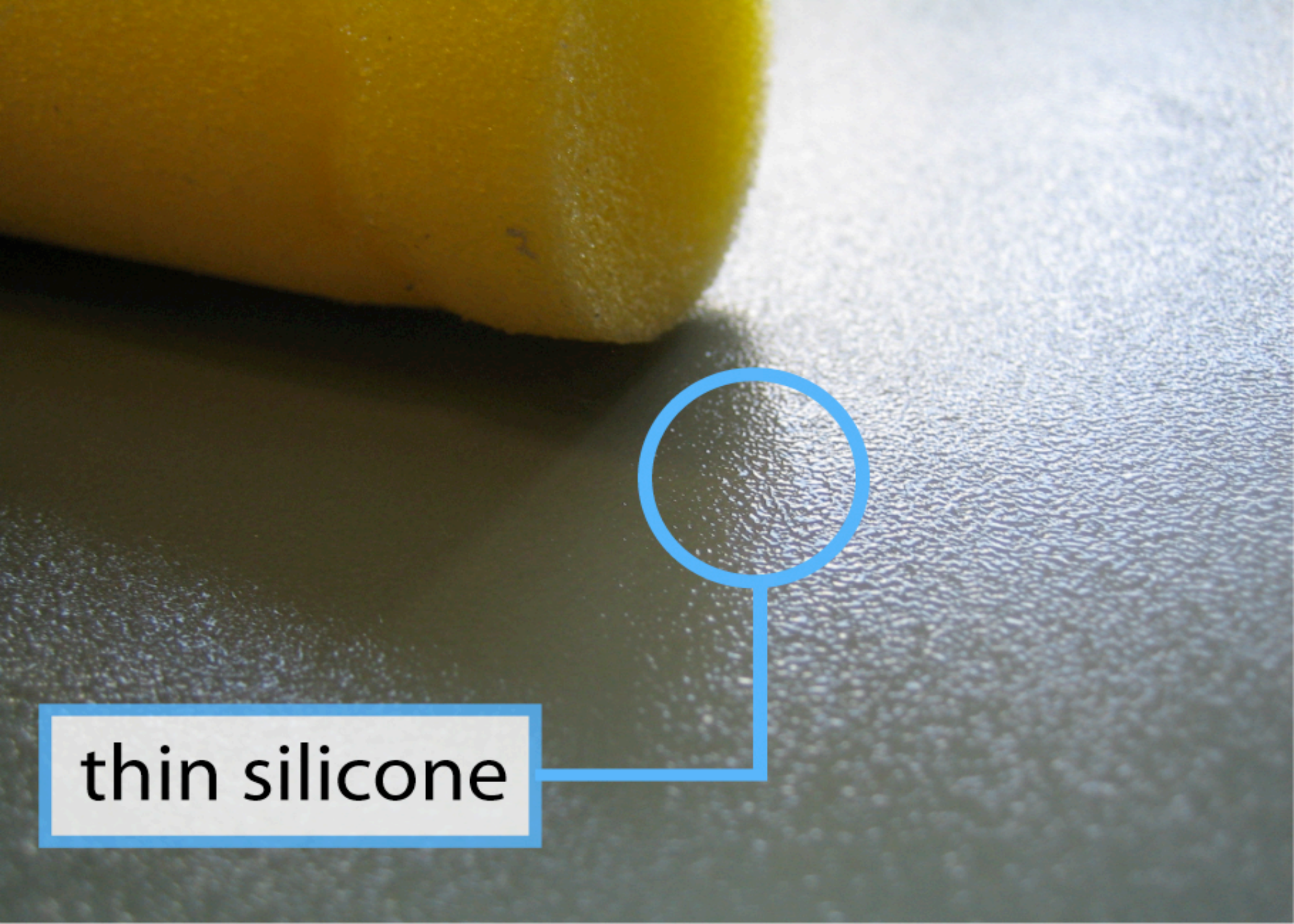
test-driven joy



ftir !



compliant layer



thin silicone

ultra short-throw projector



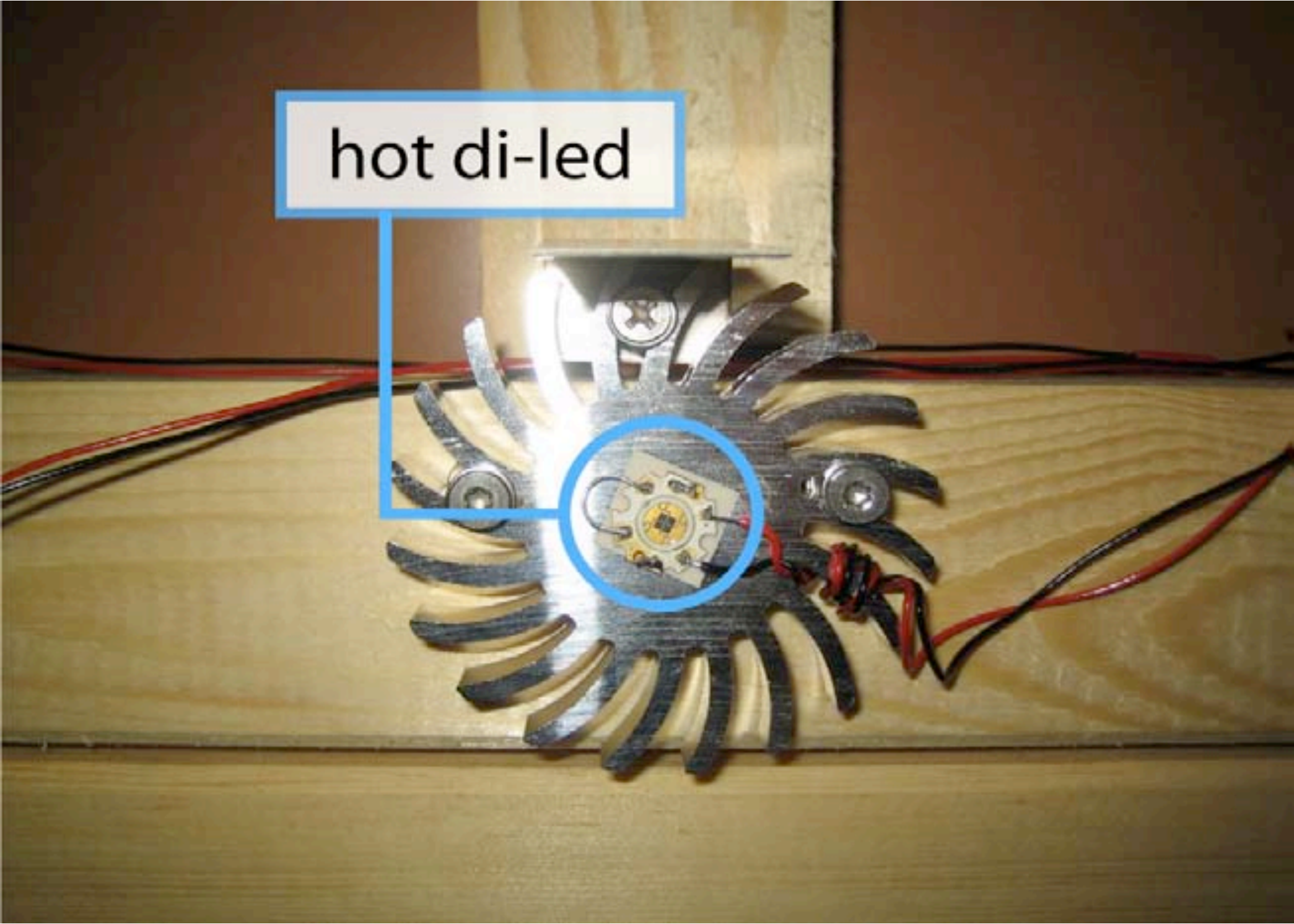



calibration!

fooBar in a nutshell



hot di-led



A photograph showing the disassembly of a PlayStation 3 camera. The camera's black plastic housing is open, revealing the internal printed circuit board (PCB) with various electronic components. A blue circle highlights a specific component on the board. A blue line extends from this circle to a white text box in the bottom left corner. On the wooden work surface, there are several screws, a small black plastic bracket, and two screwdrivers (one with a red handle, one with a clear handle).

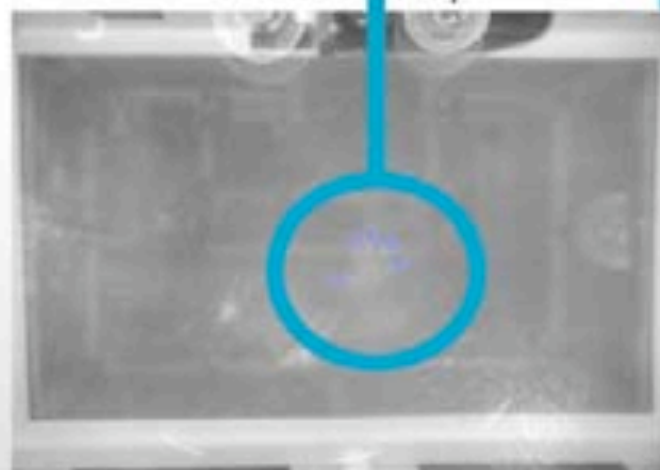
strip the ps3 eye!



ir-blocker has left the building

blob tracking

Pressure Map



Source Image SHOW OUTLINES (O) SHOW IDS (I)
 USE CAMERA PREVIOUS CAMERA NEXT CAMERA
 USE VIDEO

Tracked Image



Tracked Image TRACK DRAW BLOB
PHASE THRESHOLD: 1
MOVEMENT THRESHOLD: 1
MIN BLOB SIZE: 4
MAX BLOB SIZE: 64

Source Properties

CAMERA SETTINGS (C)
 FLIP VERTICAL (V)
 FLIP HORIZONTAL (H)

GPU Properties

GPU MODE (G)

Communication

SEND YAO OSC (T)
 SEND YAO TOP (FOR FLUSH) (F)
 SEND HEIGHT & WIDTH

Calibration

ENTER CALIBRATION (E)

Files

SAVE SETTINGS (S)

Calc. Time [ms]: 10

Camera [Res]: 640 x 640
Camera [fps]: 16

Sending OSC messages to:
Host: 127.0.0.1
Port: 3333

Press spacebar to toggle fast mode

itbeta.nuigroup.com



Background

REMOVE BG (B)
 DYNAMIC SUBTRACT
LEARN SPEED: 15



Smooth

SMOOTH: 1



Highpass

BLUR: 16
NOISE: 4



Amplify

AMPLIFY: 5

tuioClient

fect - Java - fooBarDemo2/src/helper/PAppletTuioAdapter.java - Eclipse Plattform 09 SS/Vorlesungen/Projekt/Cod

PAppletTuio.java IVisualization.java FooBarDemo.java ColorBlob.java *PAppletTuioAdapter. 4

ing_test Find:

```
1 package helper;
2
3 import processing.core.PApplet;
4
5
6
7
8
9 public class PAppletTuioAdapter extends PApplet {
10
11     private static final long serialVersionUID = -1949102552717247625L;
12
13     public PAppletTuioAdapter() {
14         new TuioProcessing(this);
15     }
16
17     public void refresh(TuioTime bundleTime) {};
18     public void addTuioObject(TuioObject tobj) {};
19     public void removeTuioObject(TuioObject tobj) {};
20     public void updateTuioObject(TuioObject tobj) {};
21     public void addTuioCursor(TuioCursor tcur) {};
22     public void removeTuioCursor(TuioCursor tcur) {};
23     public void updateTuioCursor(TuioCursor tcur) {};
24 }
25
```

```
PAppletTui.java | Visualization.java | FooBarDemo.java | ColorBlob.java | PAppletTuiAdapter.j
52 public static void main(String args[]) {
53     PApplet.main(new String[] { "--present", "--bgcolor=#666666", "--hide-stop", "init.PAppletTui" })
54 }
55
56 public void setup() {
57     size(screenWidth, screenHeight);
58     frameRate(frameRate);
59     smooth();
60
61     zones = new TUI0zoneCollection(this);
62
63     tuiClient = new TuiProcessing(this,true,zones);
64
65     fooBarDemo = new FooBarDemo(this);
66     tuiEventListener.add(fooBarDemo);
67
68     fullScreen = new FullScreen(this);
69
70     // fillScreen();
71
72     // test - zones zum Mauswechseln
73     zones.setZone("rect", 50, 50, 50);
74     zones.setZone("demo", 150, 50, 50);
75     zones.setZone("demo", 150, 50, 50);
76 }
77
78 public void draw() {
79     background(0);
80
81     //test - zones zum Mauswechseln
82     if(zones.isZonePressed("rect")) {
```

extended library

```
Problems | Javadoc | Declaration | Debug | Console | Search
<terminated> PAppletTui (7) [Java Applet] /System/Library/Frameworks/JavaVM.framework/Versions/1.6/Home/bin/java (30.06.2009 19:48:21)
x:0.4103086 y:0.38066116 width:0.51141024 height:0.05254188
x:0.42355412 y:0.25724998 width:0.22895157 height:0.05734071
x:0.57292354 y:0.4986203 width:0.052733153 height:0.060721755
x:0.28046575 y:0.5426762 width:0.029717773 height:0.030390471
x:0.3388662 y:0.07883442 width:0.0359523 height:0.0874531
x:0.07431005 y:0.26581073 width:0.19697088 height:0.43704742
x:0.285127 y:0.4625136 width:0.06272811 height:0.058216542
x:0.0 y:0.0 width:0.23603594 height:0.20294872
x:0.37856442 y:0.5184042 width:0.046976388 height:0.1771115
x:0.38743693 y:0.24347189 width:0.037973702 height:0.03329724
x:0.43576667 y:0.14426965 width:0.054093003 height:0.10600729
```




PAppletTuiO.java Visualization.java FooBarDemo.java ColorBlob.java VisualizationCursor

```

53     PApplet.main(new String[] { "--present", "--bgcolor=#666666", "--hide-stop", "init.PAppletTuiO" });
54 }
55
56 public void setup()
57     size(screenWidth, screenHeight);
58     frameRate(60);
59     smooth();
60
61     zones = new TUIOzoneCollection(this);
62
63     tuiOClient = new TuiOProcessing(this, false, zones);
64
65     fooBarDemo = new FooBarDemo(this);
66     tuiOEventListener.add(fooBarDemo);
    
```

very important methods

```

75     zones.setZone("rect", 50, 50, 50);
76     zones.setZone("circle", 50, 50, 50);
77     zones.setZone("demo", 150, 50, 50);
78 }
79 public void draw()
80     background(0);
81
82     //test - zones zum Moduswechseln
83     if(zones.isZonePressed("rect")) {
84         mode = CURSORVISUALIZATION_RECT;
85     }
86     if(zones.isZonePressed("ellipse")) {
87         mode = CURSORVISUALIZATION_CIRCLE;
88     }
    
```

Problems Javadoc Declaration Debug Console Search

No consoles to display at this time.

Task List

Find: Uncat

Outline

- init
- import
- PAppletTuiO
- ...

cam



fiducials

Source Image

Tracked Image

id: 1028 id: 1029

id: 1032

id: 1031

Source Image

USE CAMERA PREVIOUS CAMERA NEXT CAMERA

USE VIDEO

Tracked Image

SHOW OUTLINE (O) SHOW IDS (I)

THRESHOLD (A/2): 75

Background

REMOVE BG (B)

DYNAMIC SUBTRACT

Smooth

SMOOTH: 2

Highpass

BLUR: 10

NOISE: 4

Amplify

AMPLIFY: 16

Source Properties

CAMERA SETTINGS (V)

FLIP VERTICAL (J)

FLIP HORIZONTAL (H)

GPU Properties

GPU MODE (G)

Communication

SEND TUIO (T)

Calibration

ENTER CALIBRATION (C)

WARP (W)

files

SAVE SETTINGS (S)

Tracker FPS: 219

Camera Res: 320 x 240

Camera FPS: 31

Sending TUIO messages to:
Host: 127.0.0.1
Port: 333

