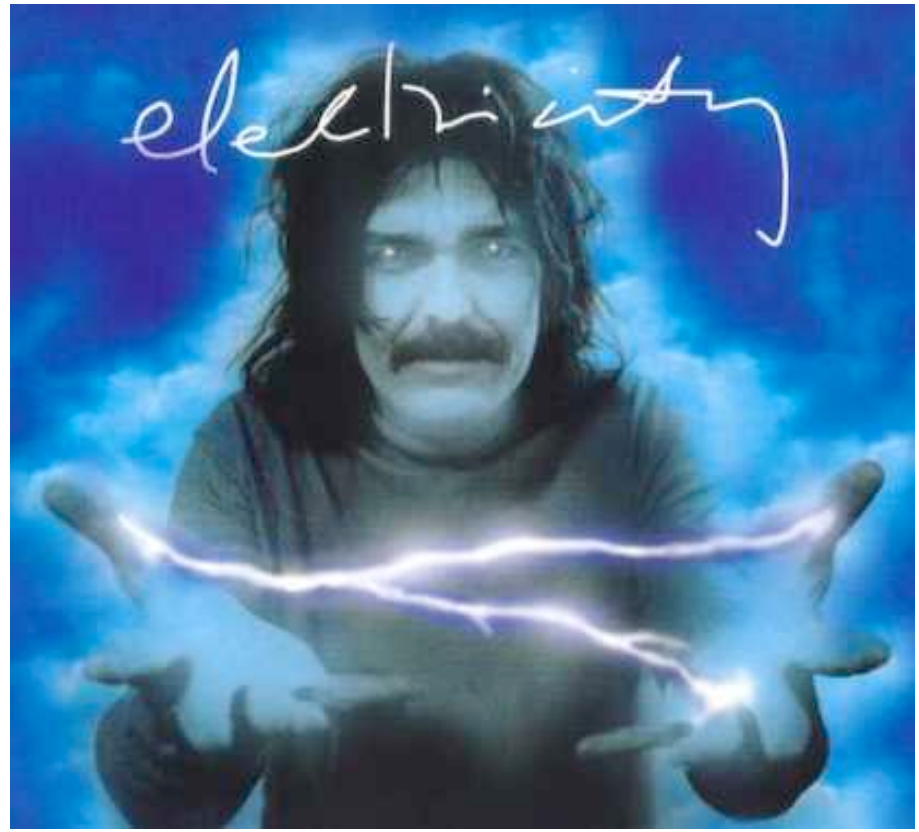
Physical Computing

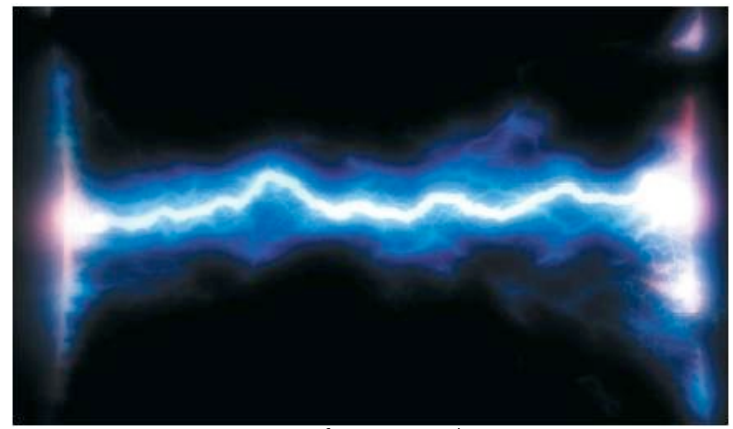
http://itp.nyu.edu/physcomp/

Hans-Christoph Steiner
hansi@nyu.edu

Thursday, Sept. 13th, 2007

do you feel it yet?





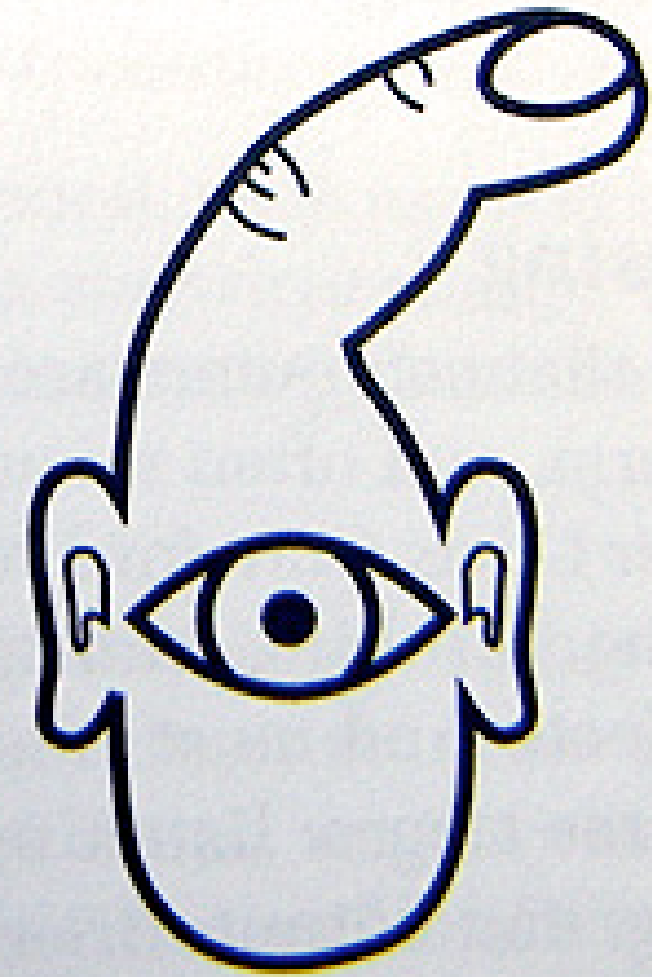
non-free images :-(

Questions?

What is interactivity?

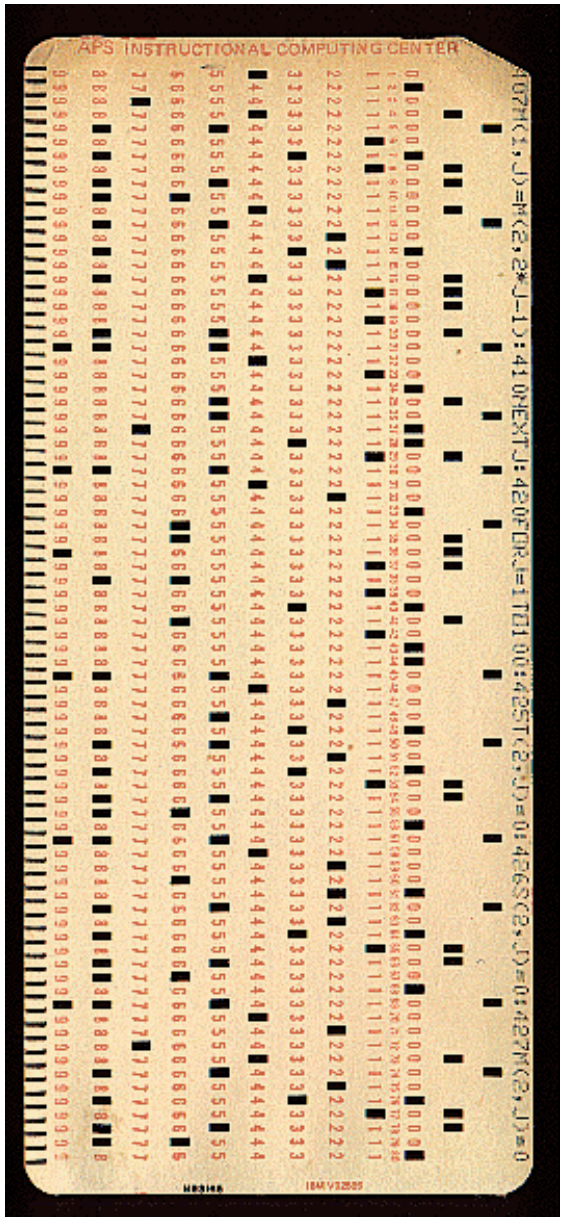
Is computing interactive?

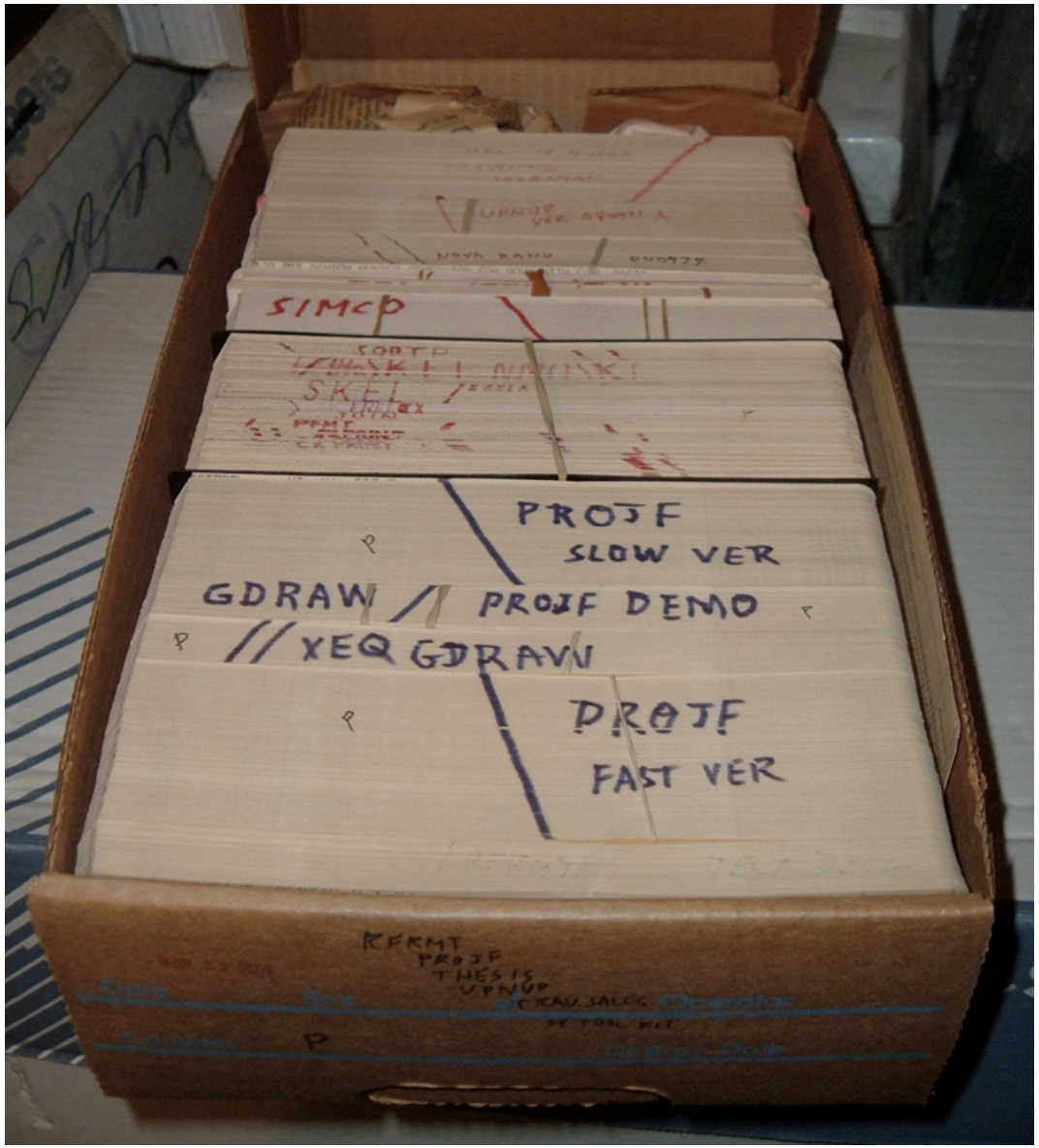
Figure I.1
How the computer sees us.



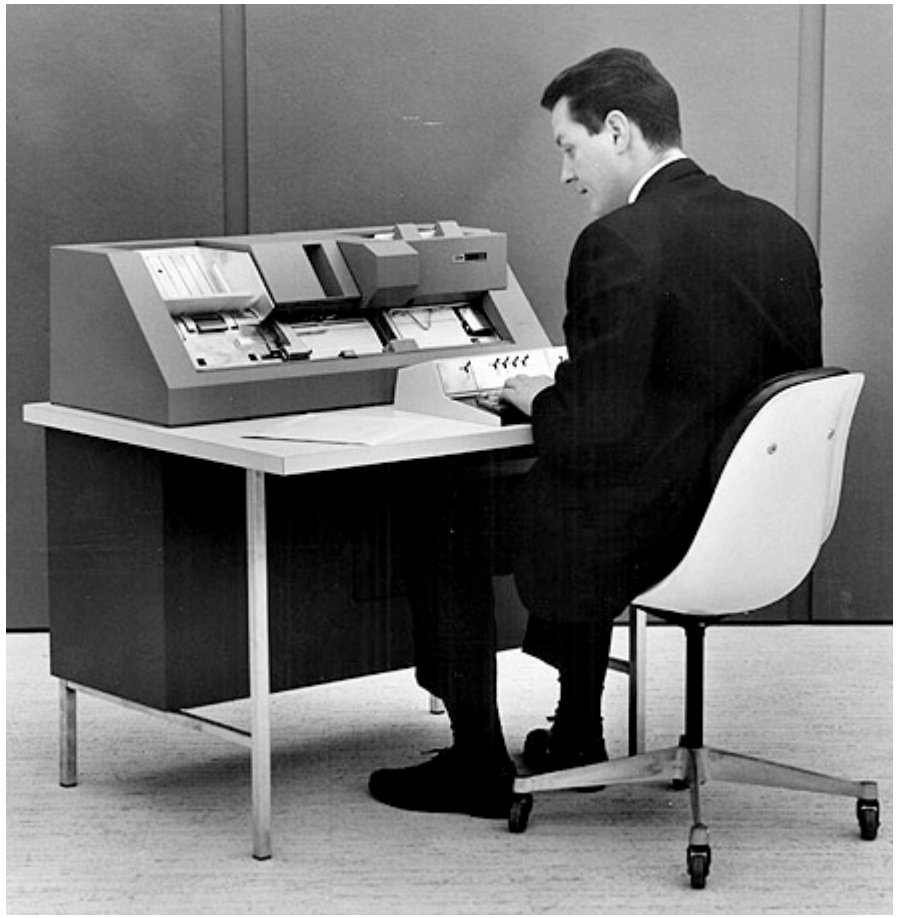
non-free images :-(

punch cards


APS INSTRUCTIONAL COMPUTING CENTER

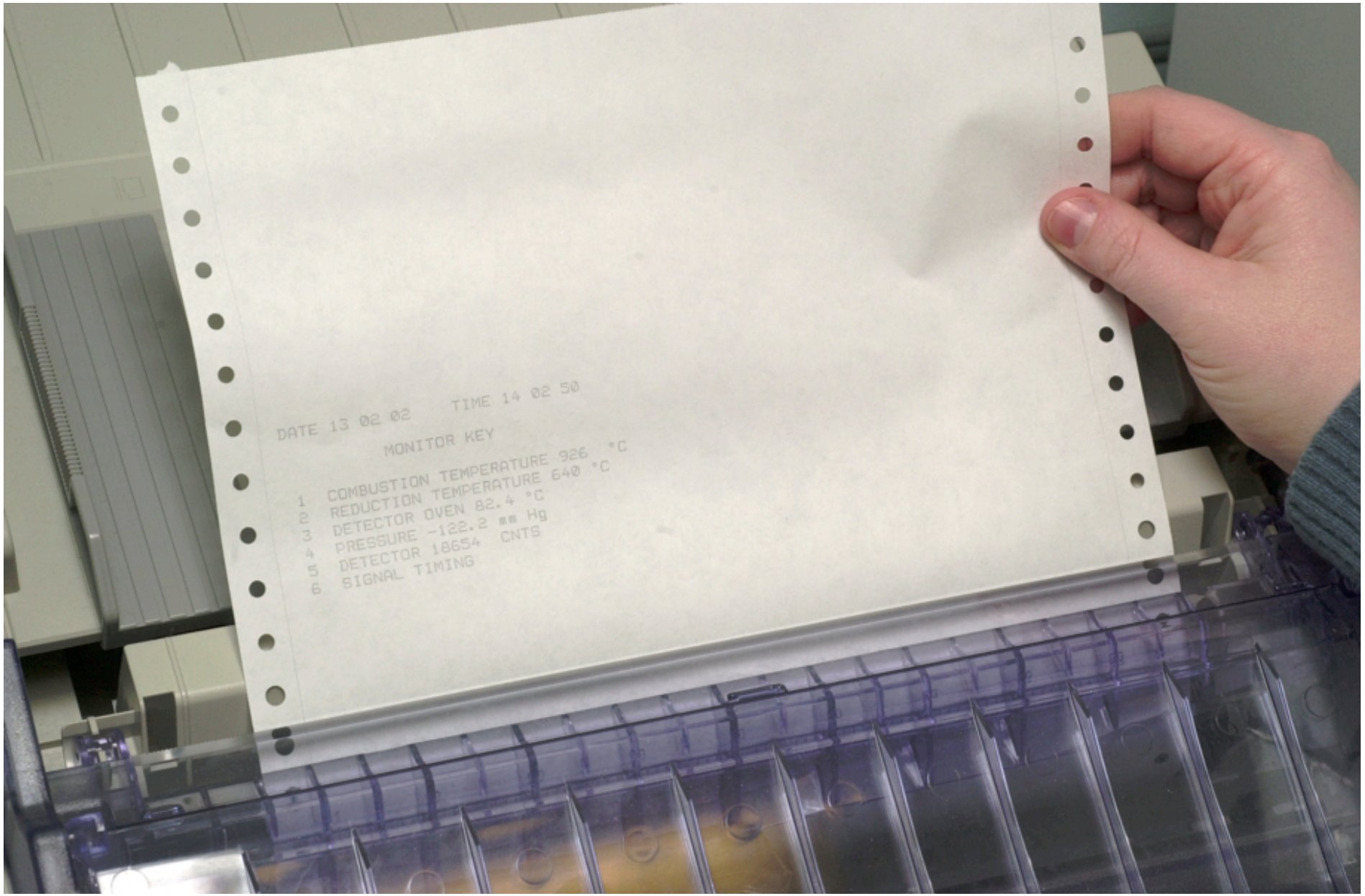

SIMCP
SKEL
PROJF
SLOW VER
GDRAW // PROJF DEMO
// XEQ GDRAW
PROJF
FAST VER
RFRMT
PROJF
THESIS
UPNUP

first, writing

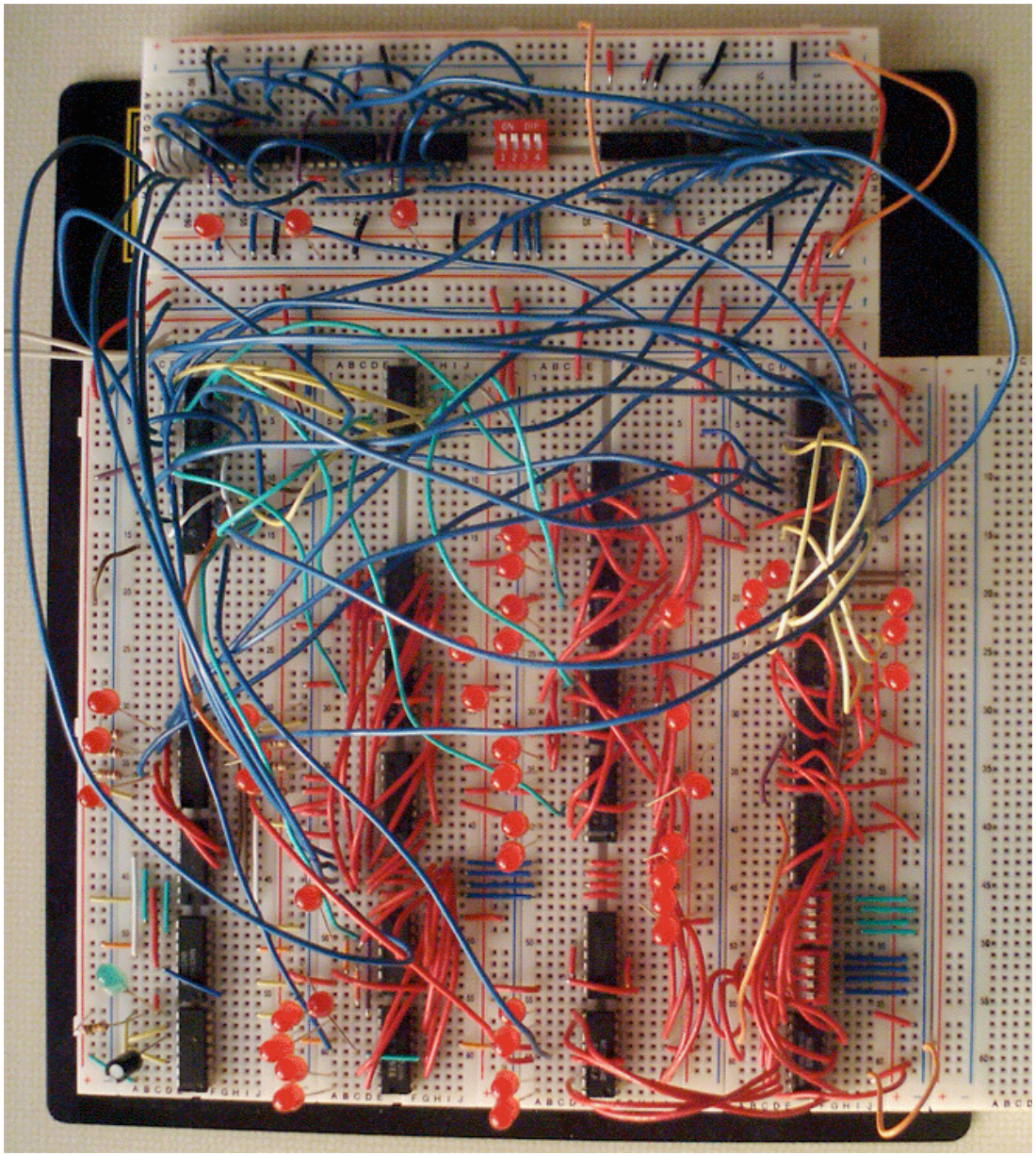


then, reading

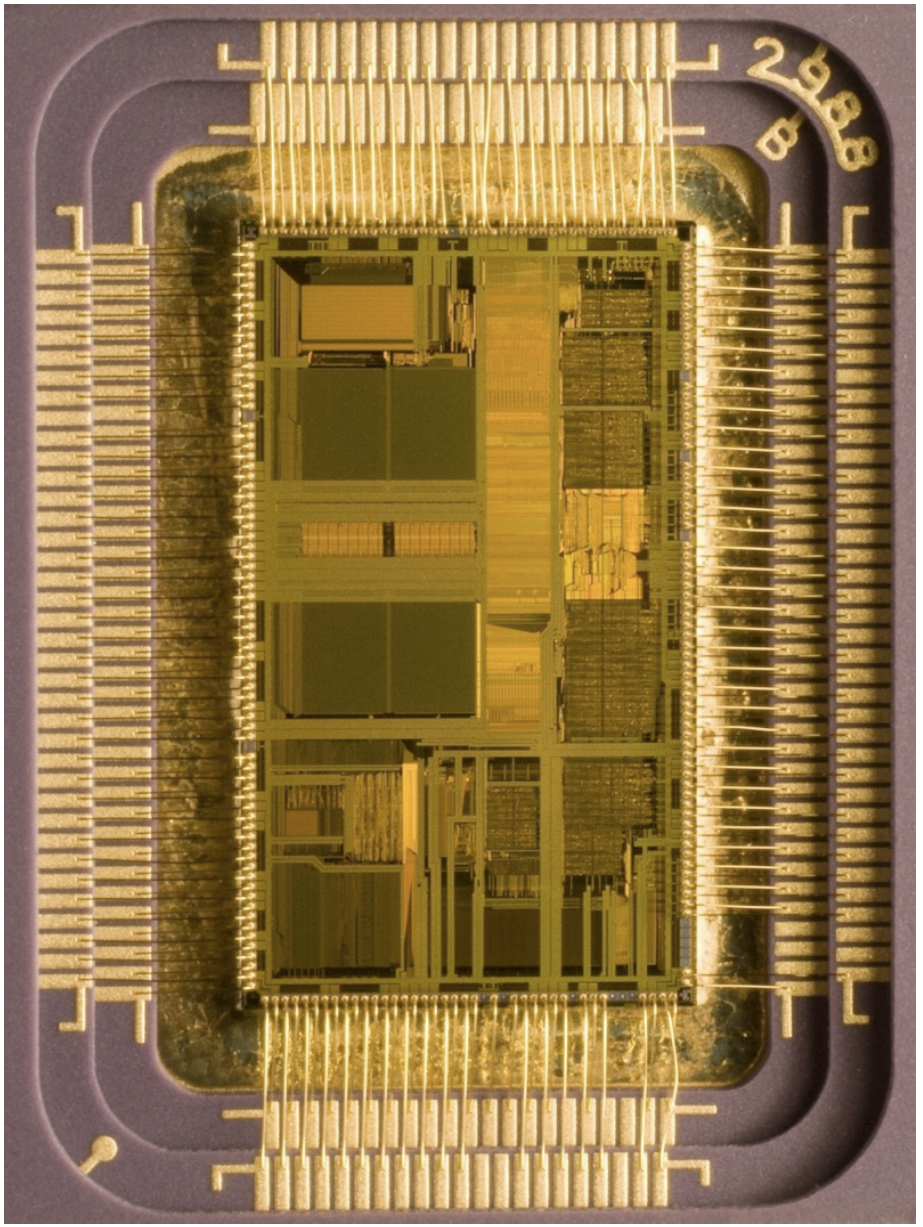
then, printout



microprocessors

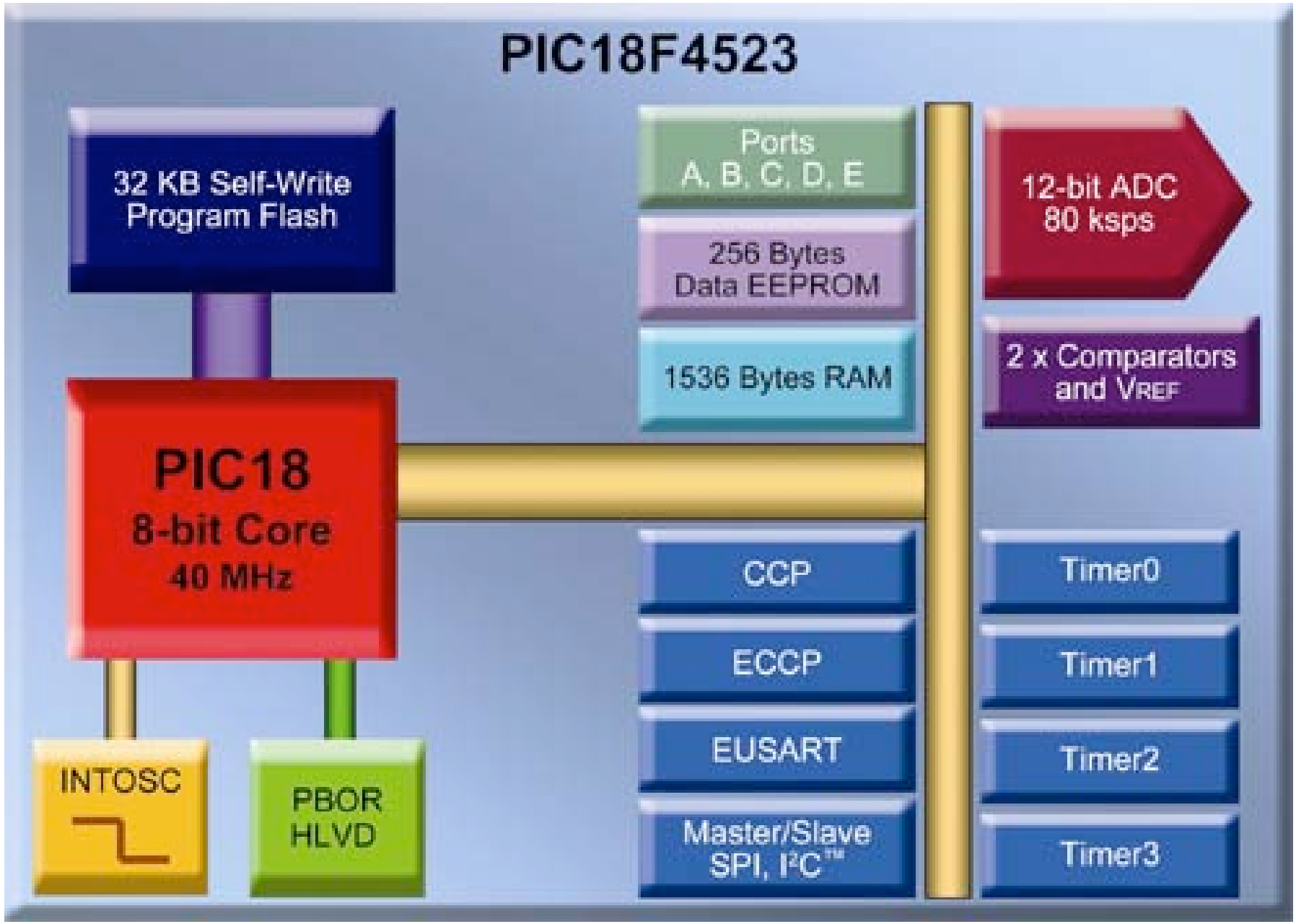


homebrew!



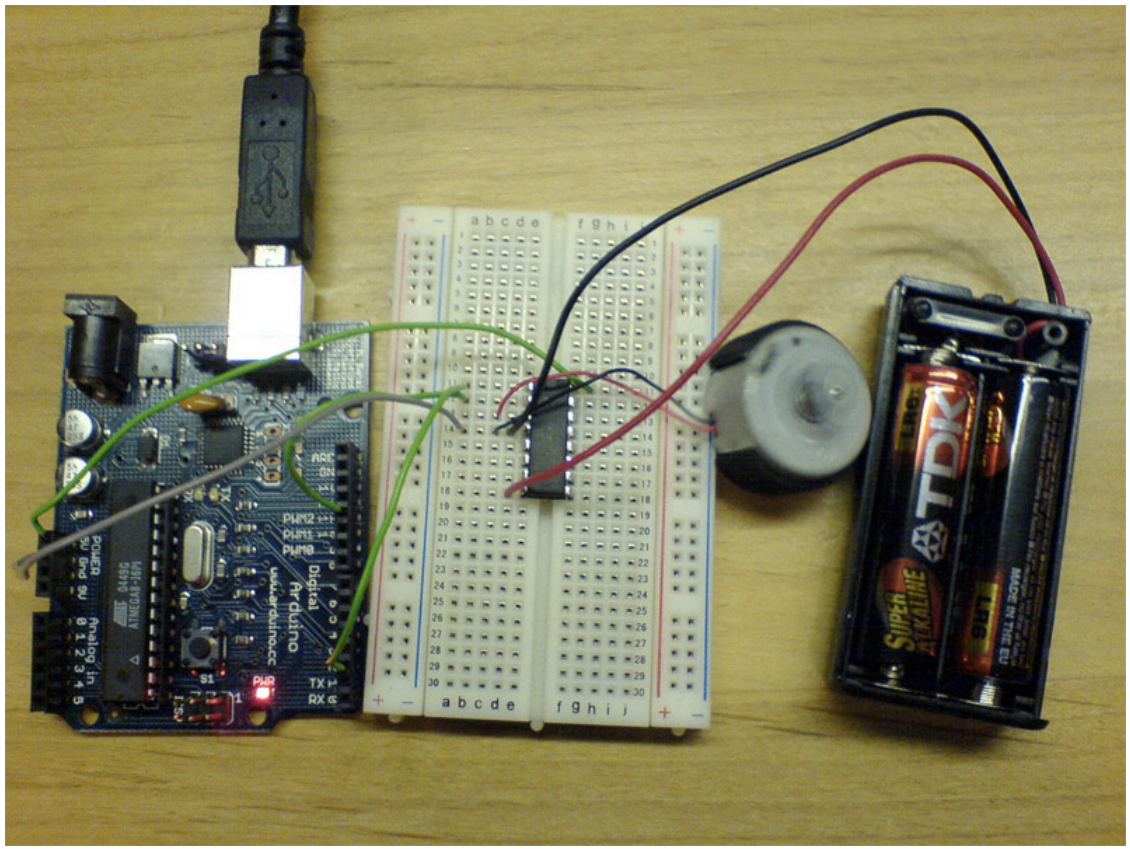
Intel 486

microcontrollers



non-free image :-(

arduino



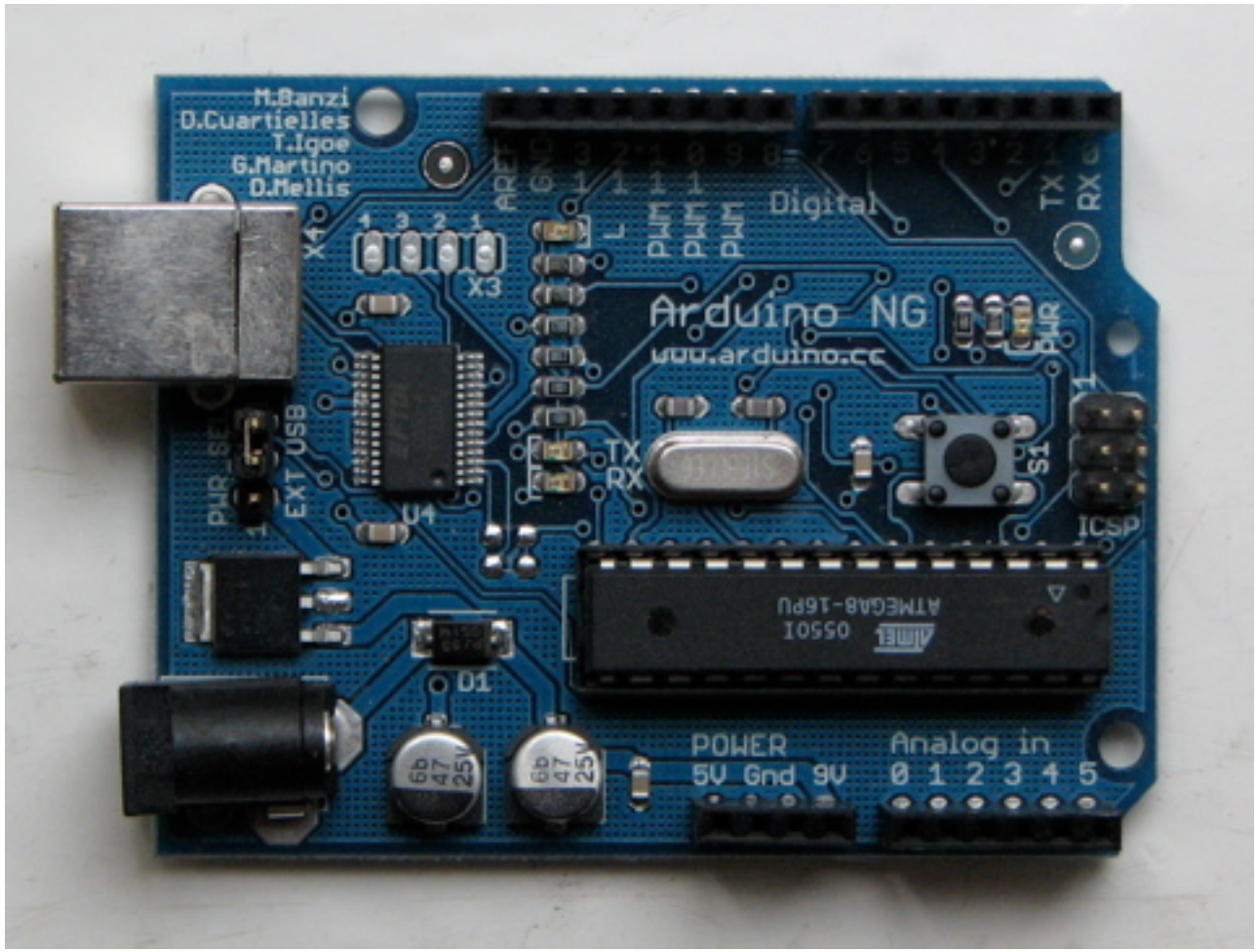
Arduino – 0003 Alpha

led_blink

```
/* Blinking LED
 * ------------
 *
 * turns on and off a light emitting diode(LED) connected to a digital
 * pin, in intervals of 2 seconds. Ideally we use pin 13 on the Arduino
 * board because it has a resistor attached to it, needing only an LED
 *
 * Created 1 June 2005
 * copyleft 2005 DojoDave <http://www.0j0.org>
 * http://arduino.berlios.de
 *
 * based on an orginal by H. Barragan for the Wiring i/o board
 */

int ledPin = 13;                // LED connected to digital pin 13

void setup()
{
  pinMode(ledPin, OUTPUT);      // sets the digital pin as output
}

void loop()
{
  digitalWrite(ledPin, HIGH);   // sets the LED on
  delay(1000);                  // waits for a second
  digitalWrite(ledPin, LOW);    // sets the LED off
  delay(1000);                  // waits for a second
}
```

1

make it blink



Observation Assignment

- http://itp.nyu.edu/physcomp/Intro/ObservationAssignment
- for one day, take note of every digital device you see
- pick one interaction and describe it in-depth

assignment for next week

- reading: Physical Computing, chapters 4 and 5
- lab: your first Arduino program
- begin Observation Assignment
- keep writing in your journals, whatever inspires you