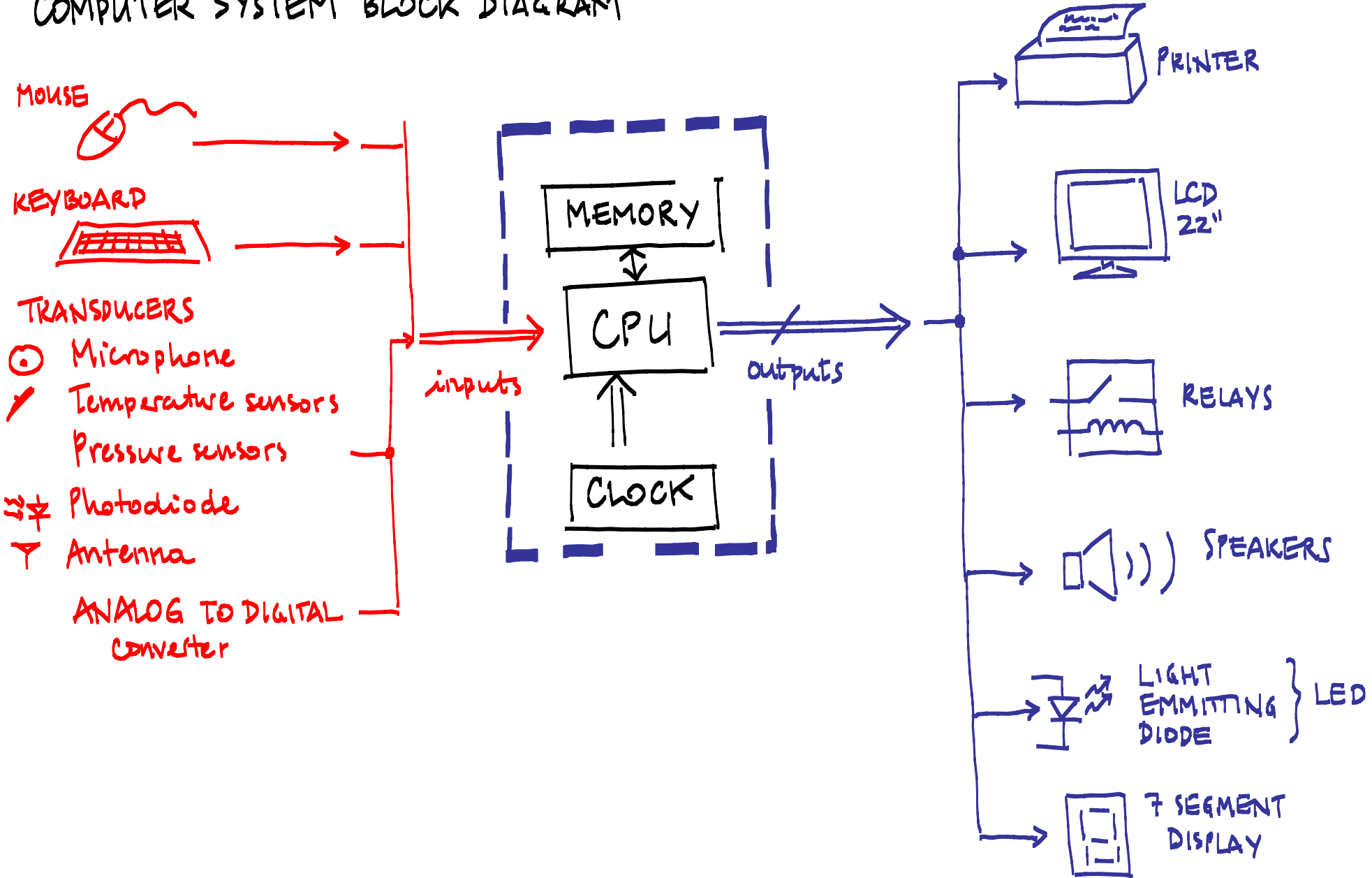


CONCEPTUALIZING MICROCONTROLLERS

Suggested Reading: UNDERSTANDING SMALL MICROCONTROLLERS (up to page 26)

COMPUTER SYSTEM BLOCK DIAGRAM



Micro Controller -vs- Microprocessor

μC
(μC)

μP

Only $\sim 0.02\%$ of CPUs Sold are
in PCs

~ 4 billion 8-bit μC were sold
in 2008

Interfacing with an Analog world

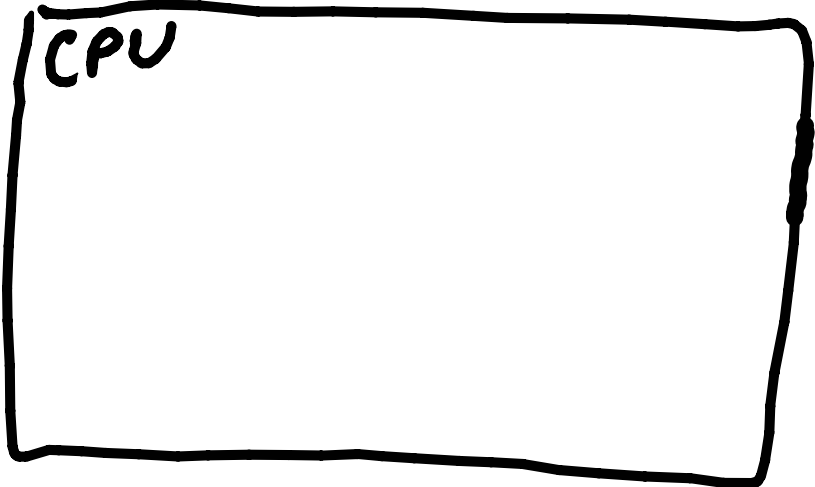
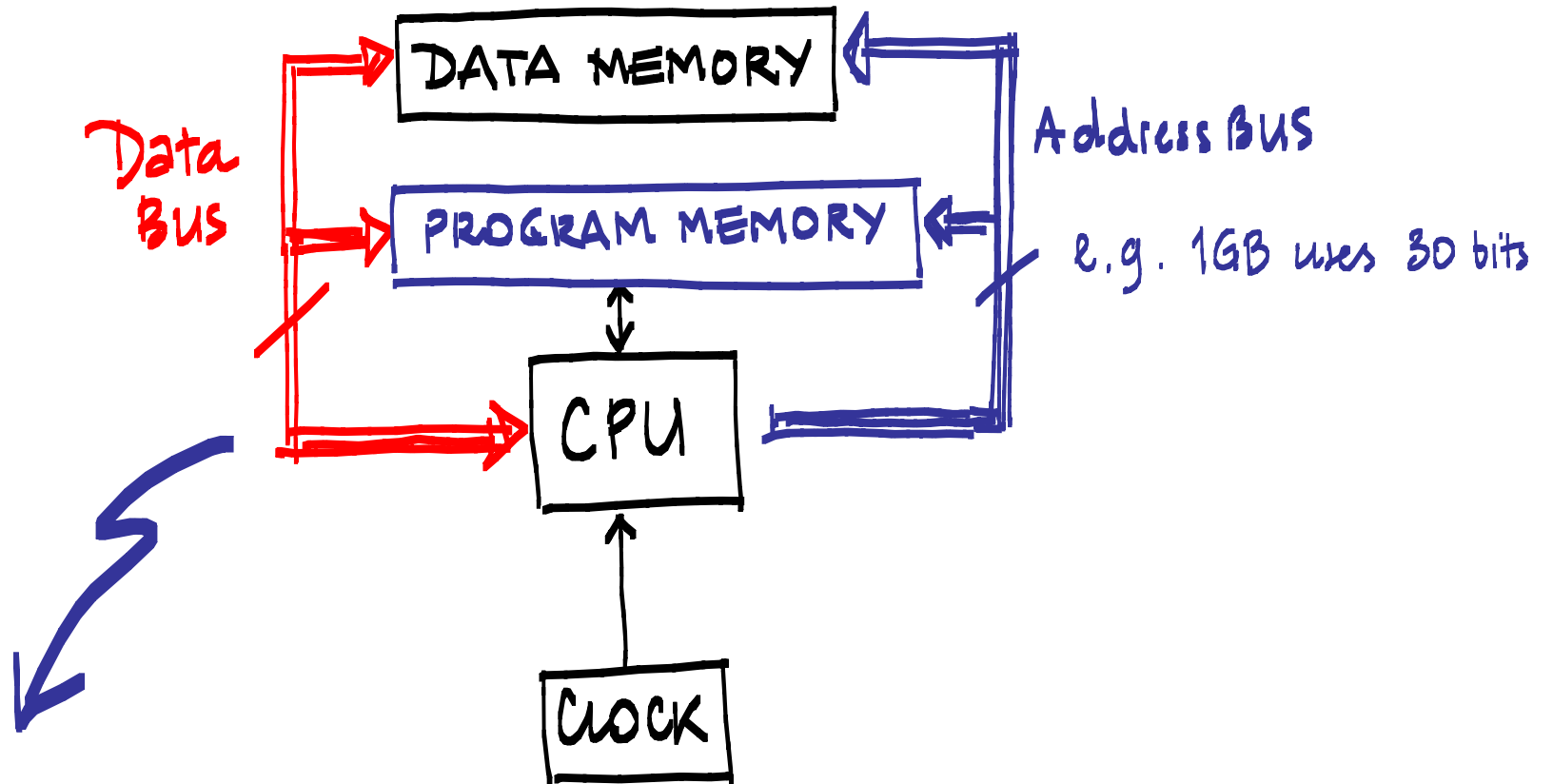
Trillions of FLOPS

Cost to produce

Support Logic

Time to become obsolete

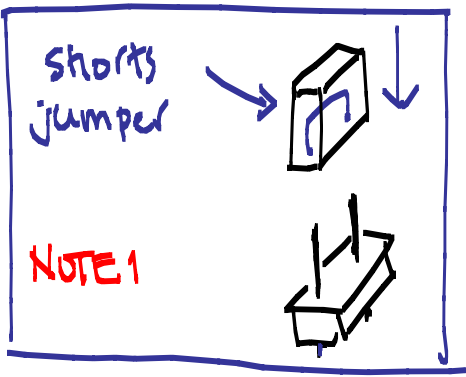
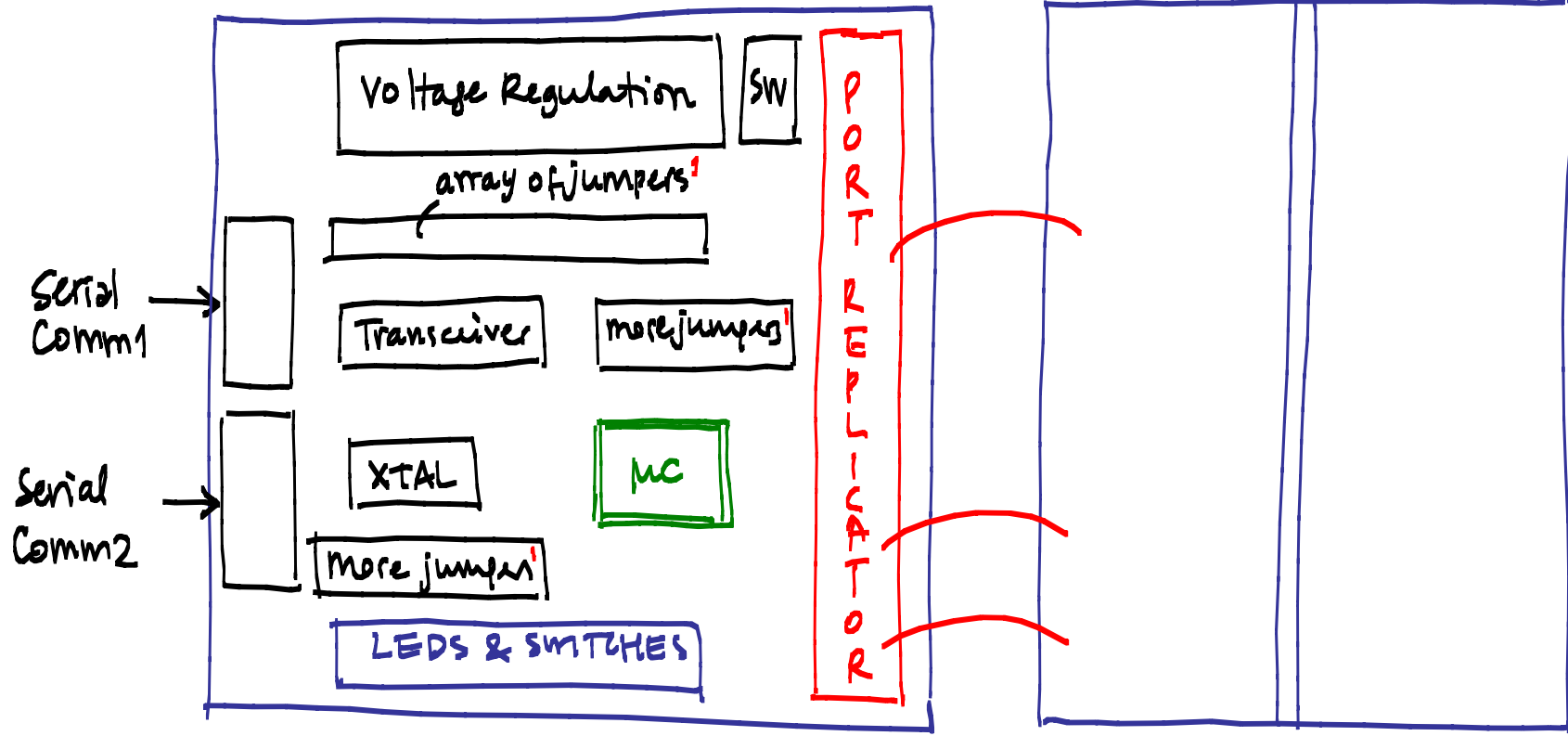
Details inside the Microcontroller



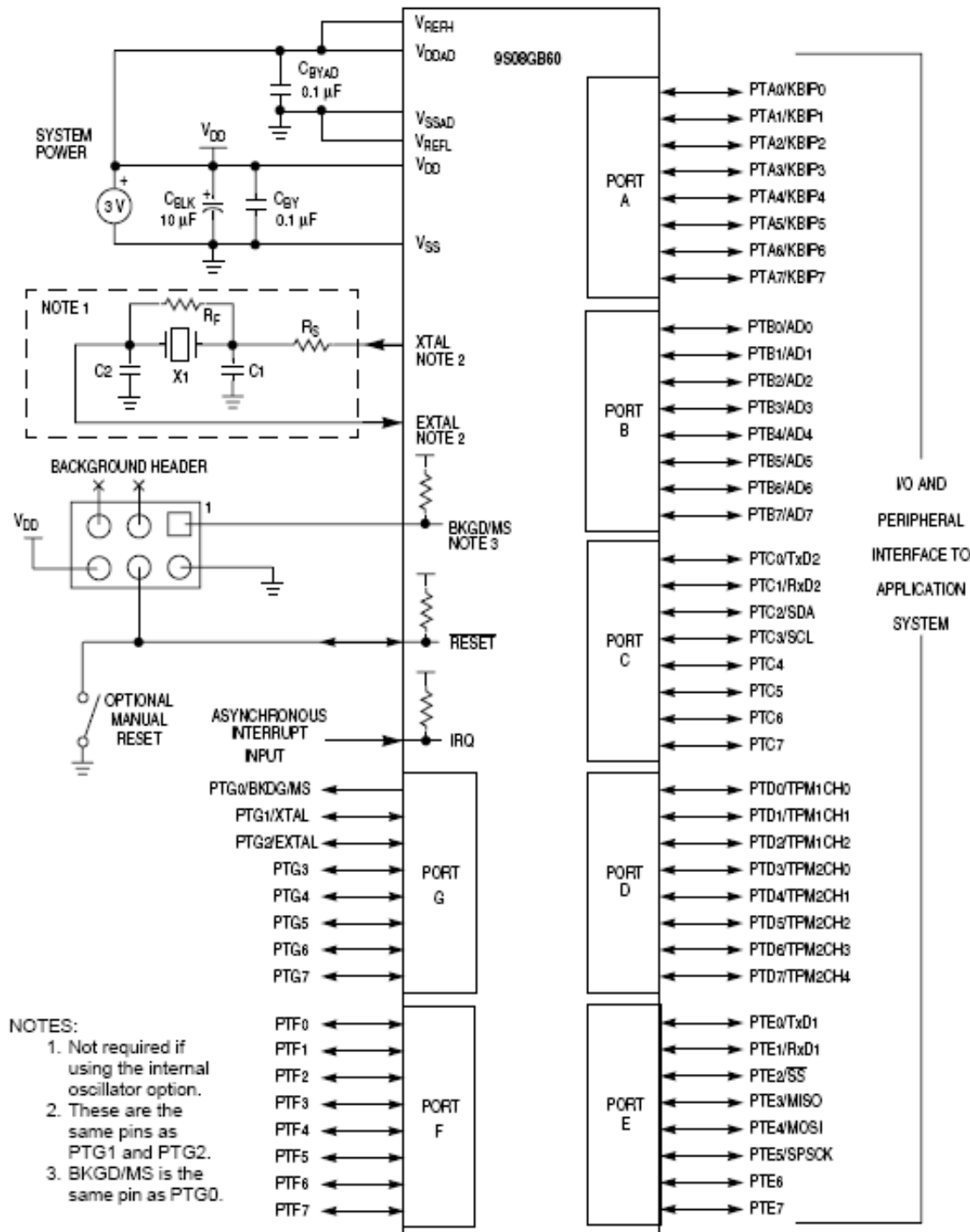
THE DEMONSTRATION/REFERENCE BOARD

EVALUATION BOARD

BREADBOARD



BLOCK DIAGRAM OF THE MICROCONTROLLER I/O PINS



```
if ( (SW4==DOWN && (mode==0 || mode==2)) || mode==1 )
{
  mode=1;
  LED4=ON;
  displayLEDs();
}
```

