Fireworks (Atari 2600)

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Console

Figure: Atari 2600 Console. 160 x 192 pixels.
4KB ROM. 64KB RAM. 1.16MH.

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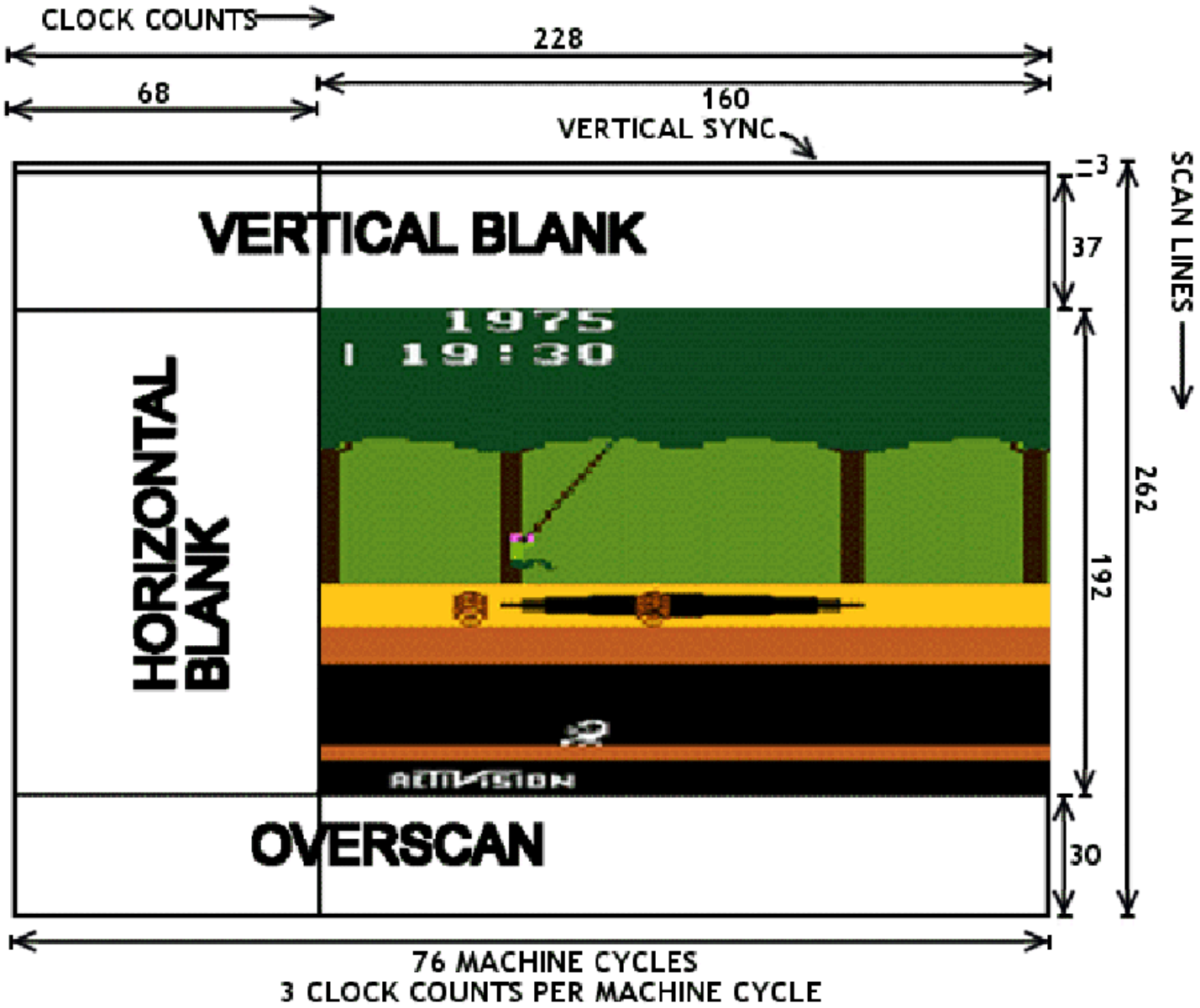
Study Material

- Book: Digital Design and Computer Architecture by Sarah Harris
- Online Course: Learn Assembly Language by Making Games for Atari 2600 by Gustavo Pezzi
- Compiler Explorer: C++ to Assembly to see behavior

Cathode Ray Tube Televisions

Figure: CRT Television

TIA


CLOCK COUNTS
228
68
160
VERTICAL SYNC
VERTICAL BLANK
HORIZONTAL BLANK
OVERSCAN
3
37
192
30
262
SCAN LINES
76 MACHINE CYCLES
3 CLOCK COUNTS PER MACHINE CYCLE

TIA

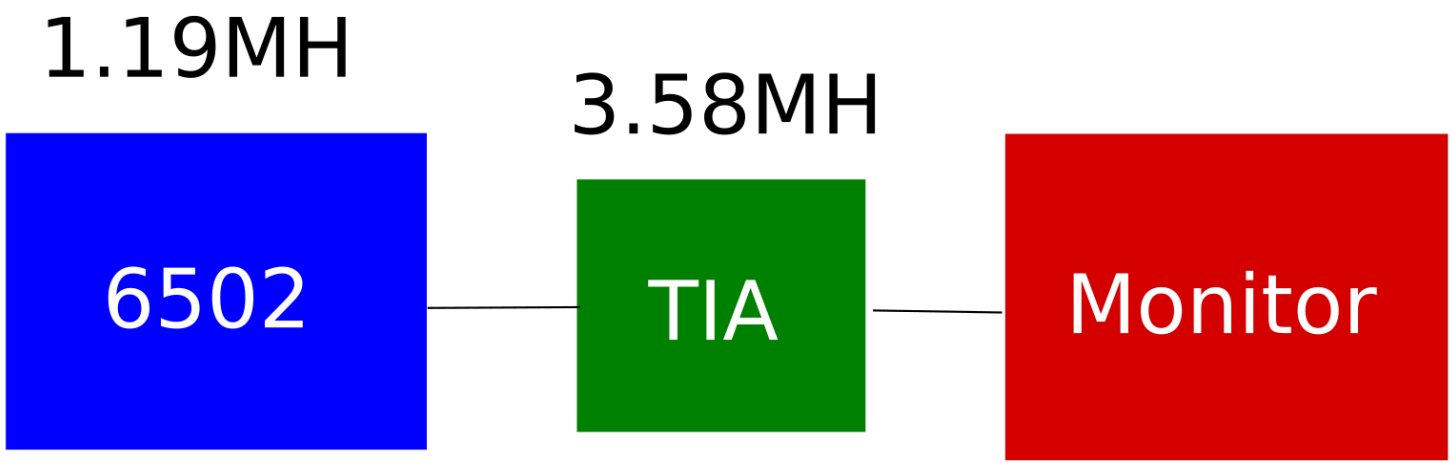


Figure: Television Interface Adaptor Diagram

Code Example

```
;;;
```

Fireworks

Fireworks

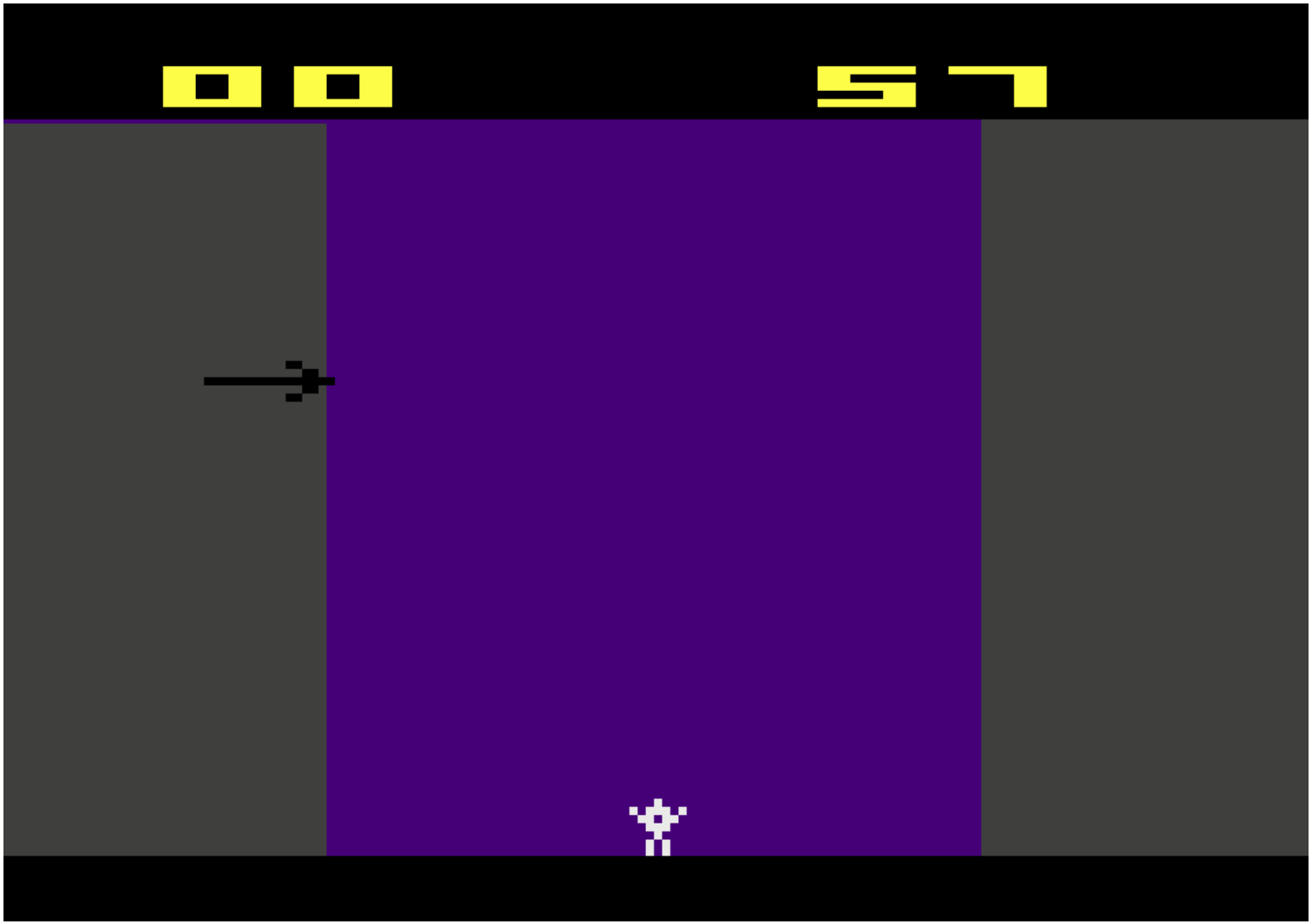


Figure: Use an emulator to run the cart.bin file from itch.
For example Stella Emulator.

Conclusion

- We learned how to manage memory and clock cycles in a constraint environment.
- We learned Assembly and how instruction sets work.
- We learned how CRT Televisions and TIA works.