

PlayPower:

Radically Affordable Computer-Aided Learning with \$12 TV-Computers

Team Members: Lawrence Leung, Luis Huan, Felix Chou (Group 12)

Mentors: Derek Lomas, Paul Blair, Srinivas Sukumar

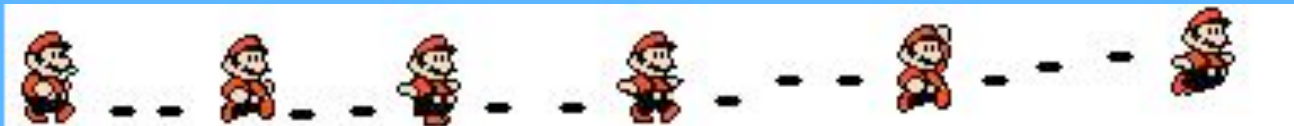
Sponsors: Calit-2, CRCA

Objective: To research and document hardware regarding the Nintendo Famicom. To research, test, and document software tools for programming for the Nintendo Famicom in order to compile an introductory software development kit for the Playpower project.

Background: The Playpower project seeks to convert an 8-bit gaming platform into an affordable \$12 home TV-computer that promotes a set of tried and true computer iterative learning games in order to provide education for children of developing countries.

Process:

- Develop a work plan
- Coordinate with mentors
- Learn and understand Famicom console and system
- Analyze programming capability of system
- Create simple programs in nBasic and cc65



Conclusion: Two software development kits have been tested and documented by the team. One kit was dedicated to cc65 (C-compiler) for the PC and the other kit was dedicated to nBasic (language developed by Bob Rost) for the PC and the Mac. Both kits include the tools and documentation needed to begin programming for the Nintendo Famicom. An evaluation of cc65 versus nbasic is also included.