Video Game Console
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Background
Though the original 8-bit home entertainment systems were released in the mid ’70s in the form of the ATARI 2600, after the crash in the early 1980s Nintendo was the major survivor. Their release, the Famicom, or Family Computer, started the next generation boom of 8-bit consoles. These consoles popularized the use of interactive video entertainment systems in homes. While these systems were very affordable, they were not cheap to develop, due to the custom component designs needed for the speed. Games were also not easily developed due to hardware limitations to save on production costs.

Today, with the steady increase in speed of hardware and lowered cost, off the shelf components could be used to develop similar systems for a much lower cost. These systems would boast easier development through increased memory supply and increased processing power. Since the style of games of the late 1980s has been revered by so many people, perhaps a return of this style would beneficial to the entire video game industry.

Objectives
• Design a custom 8-bit era video game console using modern development techniques and off the shelf components.
• Develop a Pong clone, a simple game famous for popularity, for the system.

Goals
• Design video processor
• Design audio processor
• Design central processor
• Design input processor
• Design swappable storage medium
• Design system routines to aid development
• Develop Pong

Timeline
Jan-Feb Research/Preliminary Design Work
Mar-Apr Detailed Design
Apr-May Begin Implementation
Jan-Mar Finish Implementation
Mar-May Test Implementation