Making Computers More Efficient

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Introduction

Computers are used in almost every aspect of people's lives including most jobs, school, and in the home. Most people have small computers that they carry with them every day (cell phones). Making the central processing unit (CPU) in the computer more efficient will assist in day-to-day life. For example, when a video game is being played, the CPU could be reconfigured based on choices the player makes. The CPU could reconfigure itself to be more efficient and faster, by using machine learning (ML) and artificial intelligence (AI) without having to close the game.

Background

A normal CPU has the task of running programs, performing calculations and other actions. The manner in which it works has been programmed and cannot be changed.
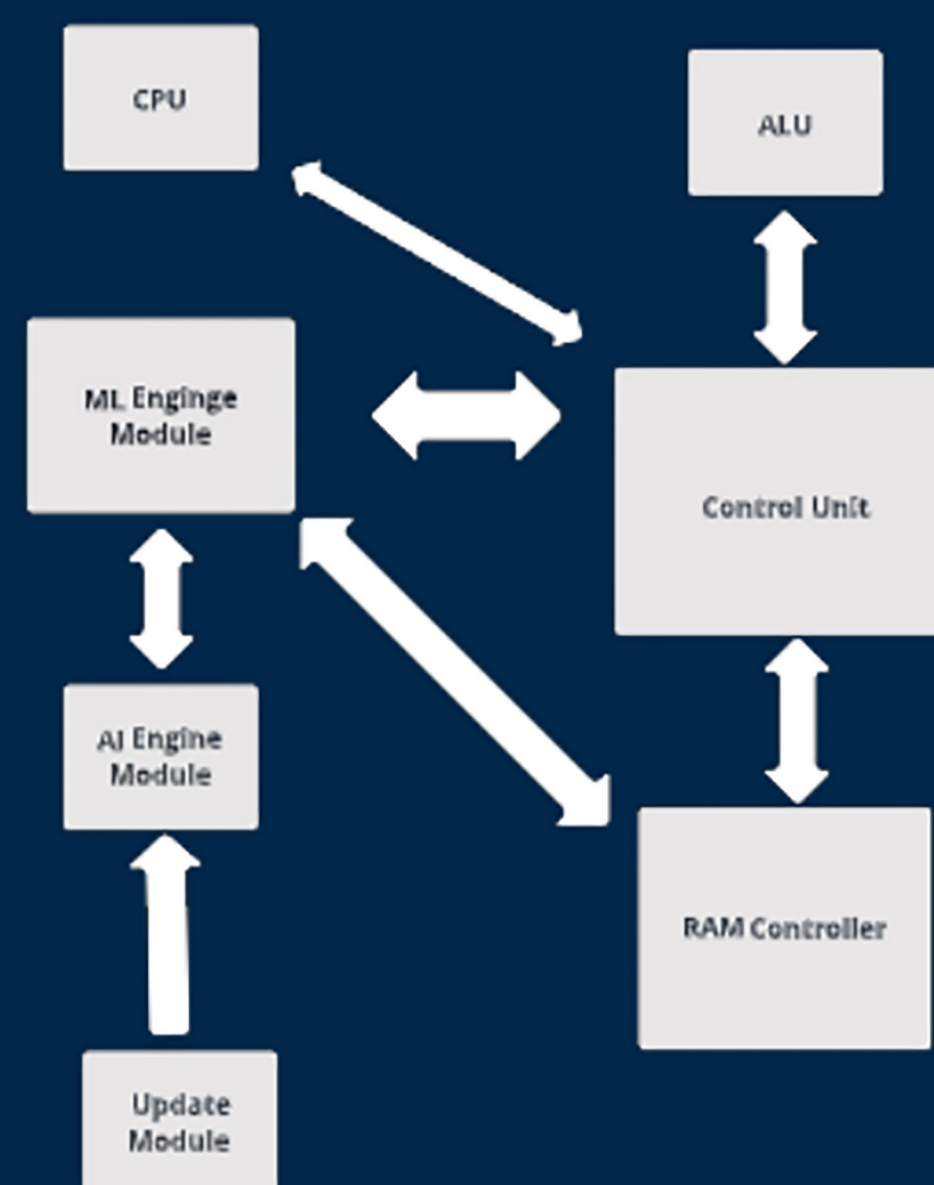
Materials and Methods

- Current Intel, Nvidia, AMD data sheets
- Ethernet network(group made own cables)
- Windows and Linux
- RAM
- Motherboard
- CPU

The team installed Oracle Virtualbox to run a virtual copy of Linux.

Current CPU
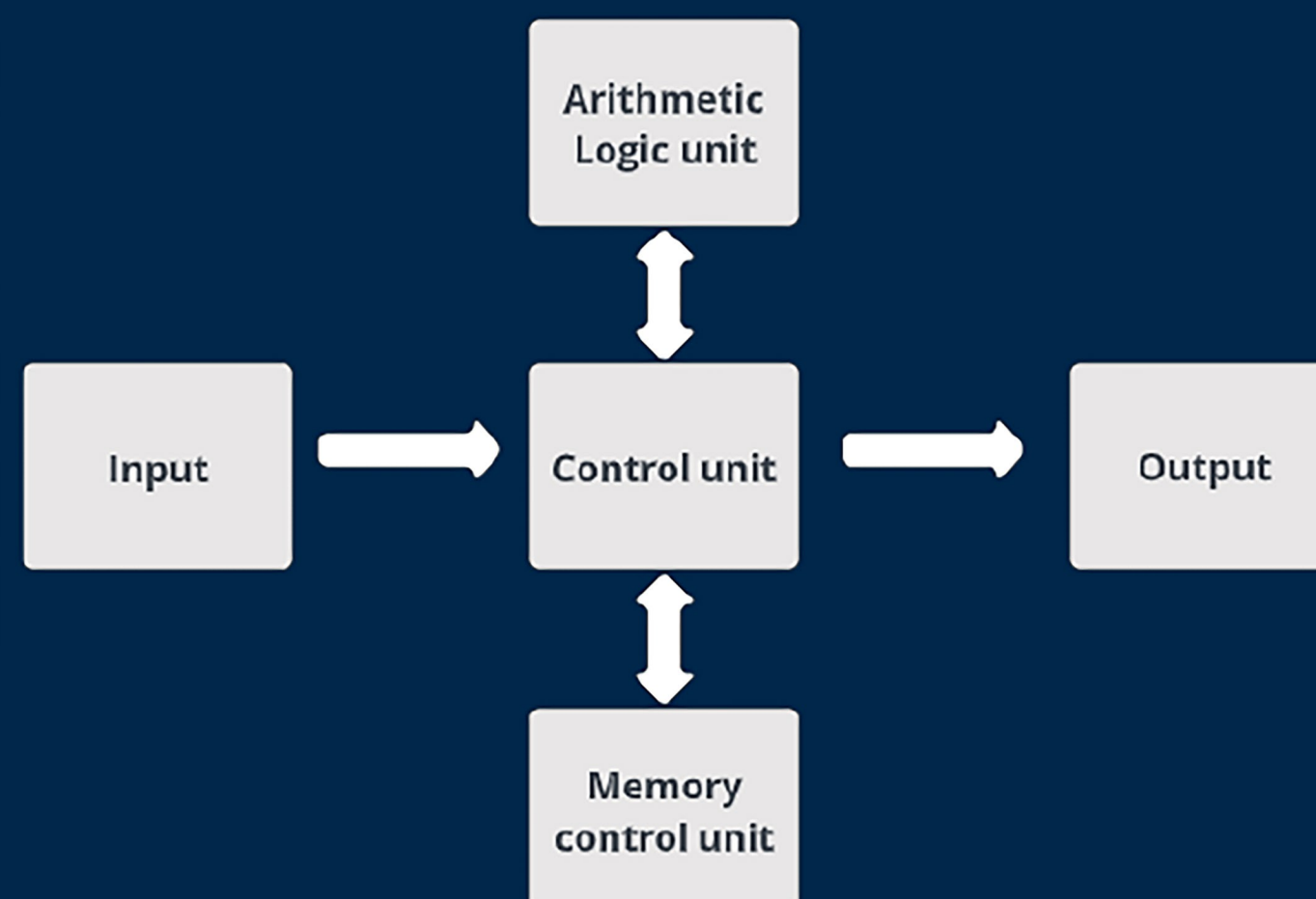
Modified Module

Results

Technology has not progressed enough yet for this to be produced cost effectively, but in theory with enough budget, a company could create a CPU that uses AI and ML to reconfigure itself and be much more efficient.

Conclusions

In conclusion, the current CPU is inefficient because it's in a static configuration. One example of how this can be modified is by incorporating AI into the CPU. By using Machine Learning a CPU and motherboard can effectively interact with an AI chip to reconfigure itself to be much more efficient.

Acknowledgements