

## Summary

Using the HTC Vive virtual reality headset, C#, and the Unity game engine we have created a fully functional chess game with the capability for offline AI matches.

## MVP Features List

- **Offline AI**
- Valid move check
- Game Menu
- Park Environment

## Specifications

- HTC Vive VR Headset
- 64 bit Windows 10
- Intel i5-9600K CPU
- Nvidia Geforce 1060 6Gb
- 16 Gb RAM

## Budget

- All software was used at no cost
- Vive headset was lent to us at no cost by UCSIM
- Total cost is \$0

## Why

Reviews on Steam left by existing Virtual Reality Chess customers requested a game that had an offline AI opponent, and this is what we have created to fulfill that request.

## Standards

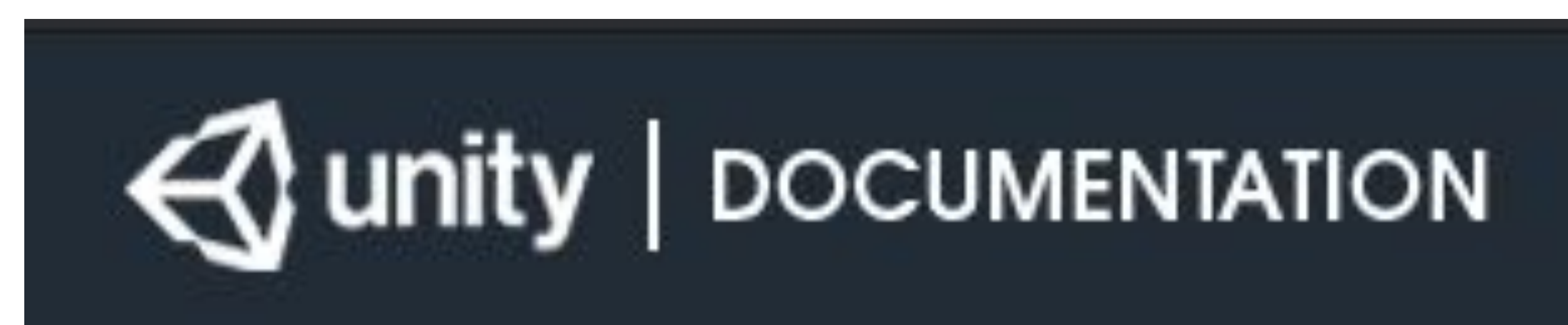
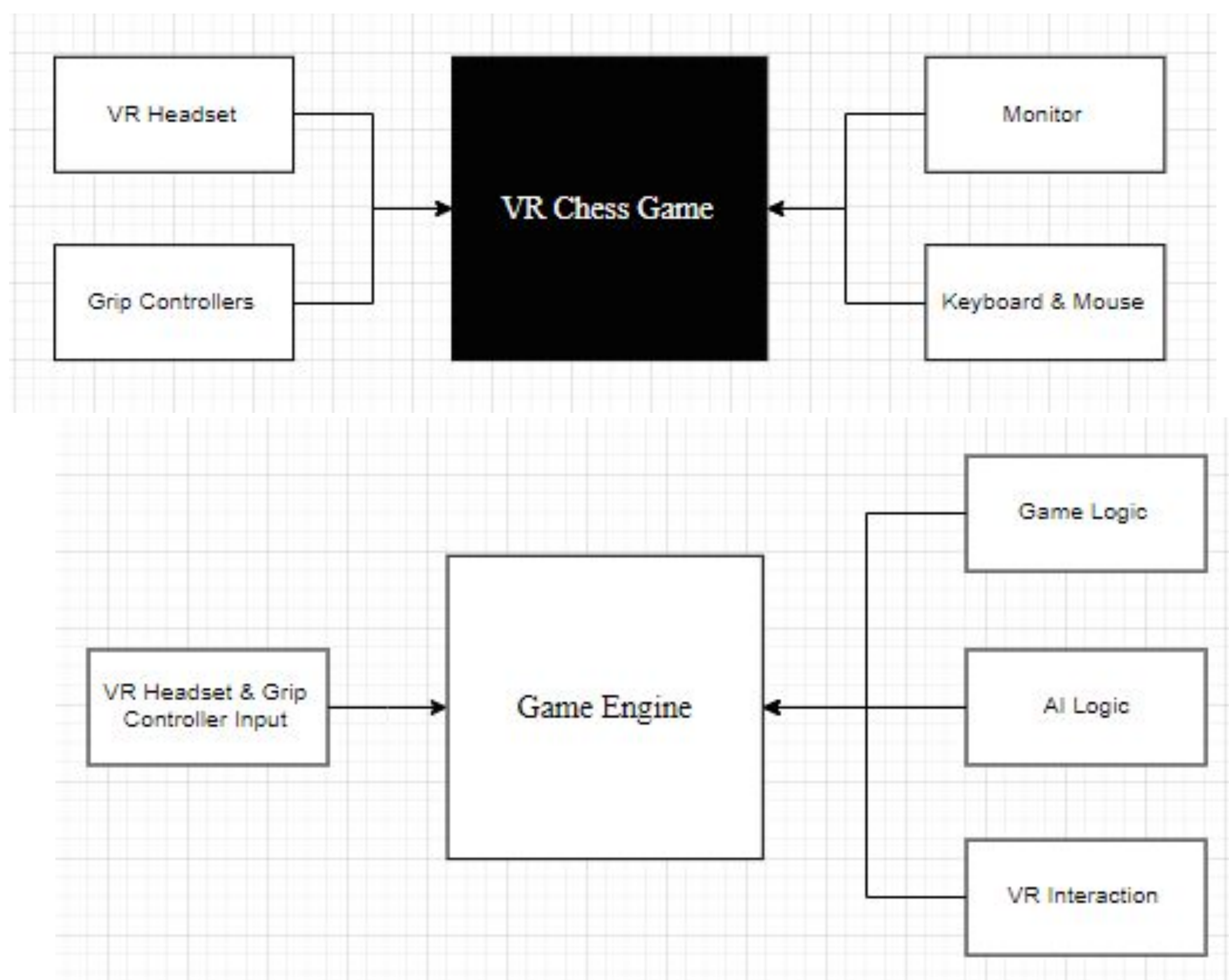
- FIDE Universal Chess Rules
- Friction-less User Experience

## Obstacles

- Limited collaboration due to COVID-19 outbreak

## Future Steps

In the initial design, we planned to create a optional timer for players along with many other additional features. Now that we have our Minimal Viable Product, we can start to develop all the other features we ranked lower on the priority list.



<https://github.com/DGWYNH/VRChess>

Branch: master	VRChess / Chess / Engine / Game /	Create new file	Upload files	Find file	History
DGWYNH Commit for error fix					
Latest commit b524c73 on Mar 1					
..					
Board.cs	Commit for error fix	last month			
Game.cs	Implementing check (king state).	last month			
IBoard.cs	Implementing check (king state).	last month			
IGame.cs	Implementing check (king state).	last month			

Branch: master	VRChess / Chess / Engine / Pieces /	Create new file	Upload files	Find file	History
Nerdulous5000 Added end game check/Fixed AI bug					
Latest commit a48eb2f on Feb 12					
..					
Bishop.cs	Added end game check/Fixed AI bug	2 months ago			
IPiece.cs	Added end game check/Fixed AI bug	2 months ago			
King.cs	Added end game check/Fixed AI bug	2 months ago			
Knight.cs	Added end game check/Fixed AI bug	2 months ago			
Pawn.cs	Added end game check/Fixed AI bug	2 months ago			
Piece.cs	Added end game check/Fixed AI bug	2 months ago			
Queen.cs	Added end game check/Fixed AI bug	2 months ago			
Rook.cs	Added end game check/Fixed AI bug	2 months ago			