

Overview

This document consists of the analysis of three games identifiable as mobile endless runners, selected for their common chess thematic, to study and compare different design choices and their outcome for these specific genres.

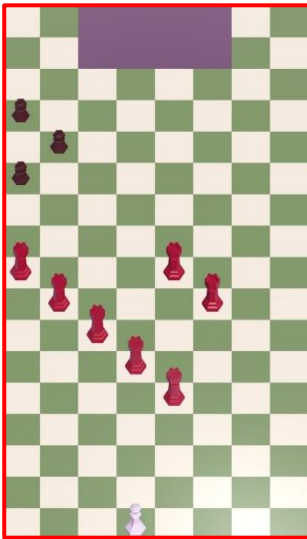
Analysed Games

The games analysed in this document are "Chess Runner", "ChessAttack" and "ChessFinity".

Comparison parameters

The analysis will focus on theme, gameplay, core mechanics and experience of each of the three games, comparing common and contrasting points of these products.

Chess Runner



Source: screenshot of the game

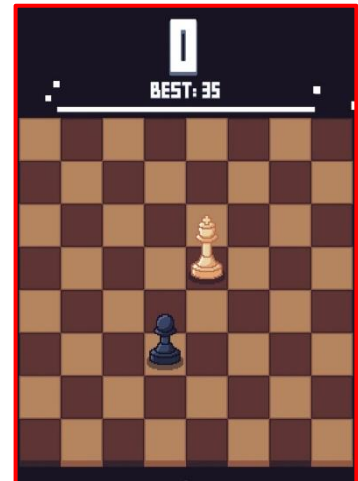
- **Theme:** the game's theme revolves around the game of chess, reinforced through the typical chessboard and the pieces (King, Pawn, Rook, Knight, Bishop, and Queen) obeying the basic rules of movement of the original game.
- **Gameplay:** while moving the King piece which represent them, players must progress for as long as possible in a vertical endless chessboard. As the chessboard keeps shifting towards the bottom of the screen, players must keep moving towards the top to escape the game over. Enemy chess pieces will spawn from the top side of the screen, disposed on the chessboard according to specific puzzles. As players King piece is unable to move on the tiles menaced by these pieces, players must find the correct path to keep going towards the top of the chessboard without being blocked.
- **Core Mechanics:**
 - **Tap to Move:** single Micro Mechanic of the game, the player can only move the King in one of its adjacent tiles by tapping the selected one.
 - **Endless Chessboard:** the chessboard is endless in verticality.
 - **Game Over from below:** if the player reaches the bottom of the screen this will trigger the end of the session.
 - **Enemy Chess Pieces:** as the game progresses, chess pieces are generated in the chessboard, the player is unable to walk on the tiles menaced by these pieces.
- **Secondary Mechanics:**
 - **Pits:** along standard chessboard tiles, some empty squares will impede the movement of the player.
- **Experience:** the implementation of the "Tap to Move" mechanic, together with the distant point of view of the camera from the player and the independent movement between each of them may create frustration to the player. Players will find themselves tapping with much speed and little precision in a small spot on the screen, usually entirely covered by their fingers. Since the King changes position in the screen while moving, players will have to tap in different and sometimes uncomfortable spots, feature that contributes to a frustrating experience.

Another cause of negative experience is found in the lack of clear feedback about which tile is menaced by an enemy piece and which is not, as the pieces don't menace every tile in the directions provided by chess rules until the end of the chessboard (as in the original game) but have instead a limited range. This choice leads to puzzles which may seem unsolvable, or which are in general difficult to read, generating irritation to players.

ChessAttack

- **Theme:** the game's theme revolves around the game of chess, reinforced through the typical chessboard and the pieces (King, Pawn, Rook, Knight, Bishop, and Queen) obeying the basic rules of movement of the original game.
- **Gameplay:** players must survive as long as possible while controlling a King piece in a squared chessboard, accumulating a score related to the number and type of pieces taken.

The gameplay is strictly turn-based, as every move performed by the King leads to the turn of the AI, which will generate new enemy pieces and move every other pieces already present on the chessboard aiming to checkmate players.



Source: screenshot of the game

- **Core Mechanics:**
 - **Swipe to Move:** single Micro Mechanic of the game, the player can only move the King in one of its adjacent tiles by swiping on the screen towards the desired direction.
 - **Limited Chessboard:** the chessboard is a limited squared area.
 - **Move Timer:** Players have a limited amount of time to perform a move. If the timer runs out an instant game over will be triggered.
 - **Enemy Chess Pieces:** as the game progresses, chess pieces are generated in the chessboard, these pieces move after every player's action, controlled by AI aiming to reach King's position.
- **Experience:** the presence of the move timer, together with the implementation of the AI which drives the pieces towards the player in a persecutory way, leads to a frenetic experience. While playing "ChessAttack", players will constantly feel menaced by the number and aggressivity of enemy pieces, which will try to overwhelm them.

Thanks to the swipe gesture used for moving the King, players will feel an immediate connection with their piece, feeling a sensation of natural and smooth control on it. The implementation of this control mechanic does not create artificial difficulty, giving the player the feeling that the challenge is fair and based on personal skill.

ChessFinity



Source: [YouTube gameplay video](#)

- **Theme:** the game's theme revolves around the game of chess, reinforced through the typical chessboard and the pieces (King, Pawn, Rook, Knight, Bishop, and Queen) obeying the basic rules of movement of the original game.

- **Gameplay:** In "ChessFinity", the goal of the player is to survive for as long as possible in an endless chessboard, with a limited number of chess pieces available (corresponding to attempts) and with a time limit that will constrain the duration of the game, extended for every piece taken by the player. From the start of the game, players will see at the bottom of the interface a list of available chess pieces. When one of these pieces is selected, the actual piece controlled by the player will take its resemblance in terms of appearance and behaviour. When the player's piece is taken by an enemy piece, the player will start again from the beginning of the chessboard (or from the last checkpoint), and the lost pieces will be unavailable for the rest of the actual game.

Enemy chess pieces are disposed on the chessboard in specific configurations, and after every player's move one of these will move according to chess rules against the player. The game consists then in surviving for as long as possible with a limited number of attempts and a time constraint.

- **Core Mechanics**

- **Tap to Move:** single Micro Mechanic of the game, the player can move the controlled piece in the tiles provided by chess game's rules for the specific piece.
- **Endless Chessboard:** the chessboard is endless in verticality.
- **Chess Piece change:** When the player selects one of the available pieces in the bottom of the interface, the actual piece controlled by the player will take its resemblance in terms of appearance and behaviour.
- **Restart:** whenever player's piece is taken, the player will be able to continue the game (if they have not exhausted the total number of pieces available) from the latest reached checkpoint.
- **Time Limit:** a general time limit will determine the game over of the player. The player can extend this time constraint by taking other chess pieces.
- **Enemy Chess Pieces:** along the chessboard are generated several chess pieces, one of which will move after every player move, the system resembles the classic turns of chess.

- **Secondary Mechanics:**

- **Collectable:** during the game the player can collect various collectable to obtain advantages in the gameplay, such as coins and power-ups that will add variability to the core gameplay.

- **Experience:** of the analysed games “ChessFinity” is the one that most resemble the base game of chess, as only one enemy piece at the time can move in response to player actions, leading to a sense of familiarity in the player.

The presence of several mechanics and collectable, in an ecosystem which doesn't seems “organic”, is a factor that may lead to an overwhelming sensation from the player, that must pay attention to several disconnected factors during gameplay.

Common points between the products

- **Time Limits:** as in the classic game of chess, time constraint seems to be mandatory to establish some rhythm in what a very static and slow game would otherwise be. Time limits also enhance the endless runner nature of the products, giving a sense of imminent need of reasoning and reaction.
- **Controlling the King:** the base structure of each of the three games is focused on the control of the King piece by the player (which is also mutable in “ChessFinity” vision). Because of its simple and intuitive move capability (only limited to surroundings tiles) the King is by itself a balanced and versatile representation of the player. Being also the crucial piece of chess, the idea of controlling the King reinforces a sense of representation and danger as well as of vulnerability.
- **Enemy Pieces as Obstacles:** Using chess pieces not only as a system of movement by the player, but also as obstacles in the game, reinforces the chess theme and aims for greater satisfaction of the target audience. The fact that players know the rules of chess a priori makes these games intuitive, breaking down some difficulties from the standpoint of designing intuitive and recognizable systems.

Contrasting points between products

- **Chess Runner:**
 - **Pits:** along standard chessboard tiles, some empty squares will impede the movement of the player.
 - **Game Over from below:** if the player reaches the bottom of the screen this will trigger the end of the run.
 - **Chess pieces as tile-blockers:** the enemy chess pieces don't move along the chessboard, but the player is instead unable to walk on the tiles menaced by these pieces.
- **ChessAttack:**
 - **Swipe to Move:** single Micro Mechanic of the game, the player can only move the King in one of its adjacent tiles swiping on the screen towards the desired direction.
 - **Limited Chessboard:** the chessboard is a limited squared area.
- **ChessFinity:**
 - **Restart:** whenever player's piece is taken, the player will be able to continue the game (if they have not exhausted the total number of pieces available) from the latest reached checkpoint.
 - **Collectable:** during the game the player can collect various collectable to obtain advantages in the gameplay, such as coins and power-ups that will add variability to the core gameplay.
 - **Chess Piece change:** player's chess piece can mutate its resemblance in terms of appearance and behaviour, becoming another chess piece.

In conclusion, the analysis reveals the importance of player representation as the King piece, the role of time limits in chess-based games and different ways to exploit the core mechanics of the original game of chess, as for example the different pattern of movement of every piece.

The system of movement and control the player has over their piece is a crucial point to be considered when speaking about player experience. The control system should be dynamic (e.g., swipe to move) in a game based on freneticism and dynamism, while it may be static (tap to move style) in a more reflection-oriented game lacking freneticism.