

Welcome to Time Traveller's Chess

Players play out a game of chess on an evolving time line. The players may make incursions into the past of the timeline, making alternative moves and attempting to race their new winning alternative timeline up to the frontier. The aim of the game is still to checkmate your opponent, but that can happen anywhere on the time line.

Base Concepts

The Time Line

The time line is a collection of time frames, each representing either the starting position of the board or a new position for the pieces after a move has been made. The past is to the left of the timeline, and the future is toward the right.

Check Mate

The aim of the game is still to bring a Check Mate against your opponent, however it may occur anywhere on the timeline. A Check Mate does immediately end the game.

Stalemate

The rules of chess are unchanged, with only one exception. A stalemate does not end the game. If a stalemate occurs at a point in time (a time frame), then the players will still be able to keep playing in different time frames.

Sand

Sand is a game currency, and each player has an hourglass with their available sand in it (or none, as at the start of the game). Sand is used to pay for moves. Many game moves require no sand to be spent.

Moving A Piece

In any time frame it is either black or white's game turn. Only a piece for that side may be moved by a player. All normal chess rules apply to the moves. Moves may have an associated sand cost, explained later. The player must have enough sand in their hourglass to be allowed to make the move. After completing a move one sand will fall back up to the top section of the player's hourglass.

Passing A Player's Turn

Unlike in regular chess, under some circumstances a player may pass instead of performing an action. From the point of view of the game timeline no passes appear, there is always an alternation of white and black game turns. When a player passes instead of moving, then two sand will fall back up to the top section of the player's hourglass. The rules and impact of passing are given later.

The Pass Heat Thermometer (Not Yet Implemented)

A player may, under some circumstances, pass as an action. When they do so they make no move but instead gain some sand in their hourglass, as mentioned above. The Pass Heat Thermometer tracks how frequently a player is passing. A player may be awarded bonus sand, if they pass while the player's thermometer is at maximum.

Timeline Features



Time Frame

The game starts with a single time frame, showing a board with all the pieces in their starting positions. Each time a move is made, the move's starting time frame is shuffled to the left, while a new time frame is created showing the move being enacted.

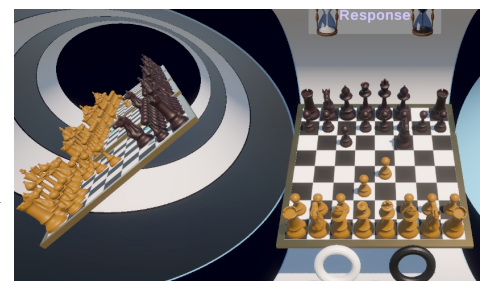


The Origin Frame

The time frame where the game starts is the Origin Time Frame. It is always in the left most position on the time line, and it never changes the position of its pieces, they are always in the game start position.

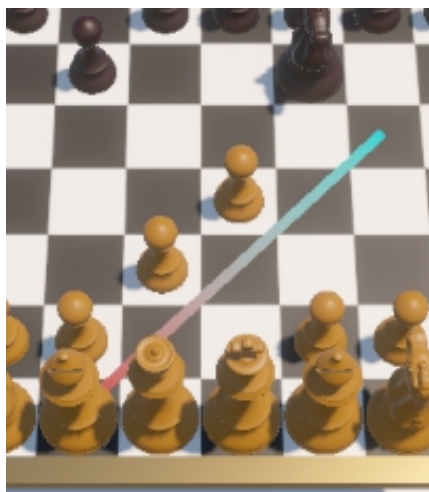
The Frontier Time Frame

The rightmost time frame is the Frontier Time Frame. At the start of a game the Frontier and Origin are the same Time Frame. When a move is made on the Frontier Time Frame then a new Time Frame is created to the right, the turn plays out there, and the new Time Frame is now the Frontier.



Player Focus Time Frame

At any moment the player will have the user interface focussed on a single time frame, the one in the centre of the screen facing the player straight on. A player can interact with the playing piece only on the Focus Time Frame. The user interface (UI) has ways to move the focus to other time frames on the timeline, and sometimes the focus is changed automatically.



Destiny Moves

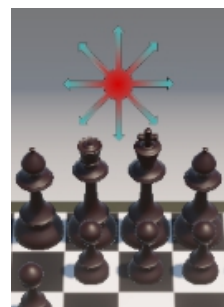
Whenever a move is made from a time frame it leaves behind a destiny move marker. If a new time frame overwrites the time frame, it inherits the destiny move marker if that move would still be a possible legal move.

If a player is making a move in a time frame with a destiny move marker, then the players may make the destiny move if they wish, and it will always require no sand expenditure. The player may move an opponent's piece in this manner. If they do their turn continues after the destiny move completes.

During a primary move action, if outside the current Significant Time Frame for the player's action, then destiny moves may not be chosen.

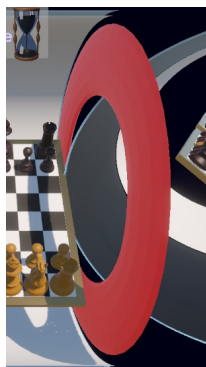
Chaos Time Frames

A time frame, other than The Frontier, that has no destiny move marker, is known as a Chaos Time Frame, and is marked in the UI. Moving any piece in a chaos frame has no difference cost for the playing piece move itself. See Sand Cost below for more detail.



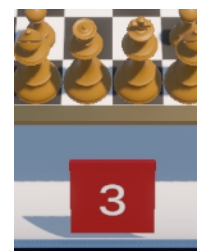
Player Time Lens

Each player has a time lens with the appropriate black or white colour. At the start of the game both timelenses are positioned within The Origin Time Frame. Whenever a player makes a primary move action (See below) their time lens first relocates to the time frame where the move will start. The move is made and any time lenses in the starting time frame shift to the time frame where the move ends.



Time Rip

A Time Rip is created by an incursion. It lies between time frames, signifying that the time frame on the left (the wake of the Time Rip) is no longer the true past of the time frame on the right (the bow of the Time Rip). Time rips create Rip Tension up and down the time line, which affects movement sand costs (See below). When a move is made in the wake of a Time Rip the rip is pushed forward with the move. If the rip is pushed off the frontier it dissolves. If the rip moves onto another rip only one rip remains in place.



Inertia

Whenever a player makes an incursion on a time frame, that time frame gains 3 points of inertia, and the previous time frame gains 1. New inertia is added after the incursion move is completed. When a player makes a move starting in a time frame that already has inertia, the inertia strength is added to the move sand cost.

Inertia only ever increases. There are no player actions that decrease inertia.

Turn Structure

Player Turns

White Player

Primary action (or pass) active time lens: white

[response action (or pass)] active time lens: black

Black Player

Primary action (or pass) active time lens: black

[response action (or pass)] active time lens: white

The Significant Time Frame is the time frame currently containing the active time lens.

Game Turns

As per normal chess, white piece move then black piece move. All rules apply, check, check mate, pawn promotion, taking en passant, castling.

Primary Action

Always occurs.

May pass if:

At the Significant Time Frame there are no legal moves the player can make, or there is at least one legal move that requires more sand than the player has available.

If the player cannot pass, or chooses not to, then they must play a move, although it may be in a time frame other than the Significant Time Frame.

In the Significant Time Frame, if it is a Game Turn with their side to move, they make any legal move for their side that they can afford. If it is a Game Turn with the opponent's side to move then they may only legally move an opponents piece where it would repeat the destiny move for that piece, and the player can afford the sand cost.

Outside of the Significant Time Frame the player may not choose to replay any destiny move. Instead they must choose to make a move other than a destiny move in a time frame where it is their own side to move. They must be able to afford the sand cost. If they do this they have performed an Incursion.

Response Action

If the player's time lens is not in the same time frame as the opponent's time lens.

May pass if:

- there is no valid move to make at the opponent's time lens position.

- there is at least one valid move at the opponent's time lens position that the player cannot afford to make.

If the opponent's time lens is in the wake of a time rip, and its the opponent's move in that time frame, and there is an affordable destiny move, the player may force the destiny move.

Otherwise, if not passing or forcing a destiny move, then the player must make a move in the time frame of the opponent's time lens position.

Forcing A Destiny Move

From time to time a player may force an opponent's piece to make a destiny move (destiny moves are described above).

A destiny move, for an opponent's piece, in the Significant Time Frame for a player, may be forced, even though the context may have changed and the move would now be a bad choice.

After forcing a destiny move, the current player may continue their Primary or Response move, potentially taking advantage of the destiny move they just forced.

Sand Costs

Sand is the energy used for time travel.

To make a move there are three sand cost components:

- the difference cost

- the inertia cost

- the time rip tension cost

After making a move and spending the necessary sand cost a player regains 1 sand.

If the player passes, instead of making a move, they regain 2 sand.

The Difference Cost

When making a move in any time frame other than the frontier (where there is as yet no future time frame), or a Chaos Time Frame (as explained above) the difference cost is calculated by comparing the new board's start and end squares with the situation on the board for the time frame being overwritten.

For each of the two squares (from and to):

- if the new and old square are both empty then that adds nothing to the cost.
- if the new and old square both contain the same piece type, and each is on the same side, then that adds nothing to the cost.
- If the new square is empty, but the old one has a piece in it, or vice a versa, then that adds 3 points to the cost.
- If the old and new square each have a piece, but they are for different sides, then that adds 2 points to the cost.
- If the old and new square each have a piece, and they are both on the same side, but the type of piece is not the same, then that adds 1 point to the cost.

That gives 0 to 3 points for each of the "from" and "to" positions, for a total of 0 to 6.

Incursions and the inertia cost

On a primary move, when a player makes a move into a time frame that does not yet contain their own time lens, that is called an incursion. The time frame gains 3 points of inertia. The time frame prior to the incursion gains 1 point of inertia. Inertia is placed after the move has been made. If you begin any move in a time frame that already has one or more inertia points, then that is added to the sand cost for the move.

On an incursion the player's time lens is moved to the incursion time frame before making the move.

The time rip tension cost

Incursions create time rips just ahead of the player's time lens location. They lie between time frames, and get pushed forwards whenever a player, in their wake, makes a move.

If a time rip gets pushed over a future time rip then the future time rip is dispersed.

At a time frame, the time rip tension cost is = (3 x the total number of time rips in the past direction) – (3 x the total number of time rips in the future direction). It is possible for this cost to be a negative number i.e. The player can gain sand by making moves here.

If the current move is a Response move, then time rips between the two player time lenses are ignored for the purpose of calculating the time rip tension.