## Mini Meta Chess

Developed by Joe Larson aka the 3D Printing Professor

## Introduction

Chess has risen to another level as the traditional game pieces mount oversized versions of themselves to dominate the board.

In Mini Meta Chess combines abbreviated board and rules of QuickChess with the unique mechanic of (relatively) giant chess pieces with a mini-Chess board on top of each. Use your large chess set to deliver crippling blows to your opponent's mini set or help your mini pieces escape. Wrestle control of your opponent's pieces to thwart their strategy. Be the first to Checkmate your opponent's mini king to win.

## Objective

The goal of the game is to capture your opponent's small king. Any large piece that is carrying the small king is therefore at risk of checkmate.

## Setup

The board is $5 \times 6$. The big pieces are set up in order from the right to the left of their player; King, Queen, Bishop, Knight, and Rook. The large pawns are placed on the next rank. The smaller pieces are placed on the corresponding large piece at the "front" rank of their piece, on the left side of their player.

## Turns and Movement

In mini meta-chess it is only the small pieces that actually move, though on their move they can choose to pilot the piece they are on in the traditional way or they can move
 on the small, potentially even moving off their mount and on to another according to the movement rules below. Unpiloted large pieces cannot move or threaten check but can still block the movements of other pieces and can be captured by opponent large pieces.

Any big piece conveying a small king can only move one step, in addition to their regular movement limitations. So a rook or bishop still can only move in their usual ways, but only one square when conveying a small king. The knight conveying a small king remains unaffected as its move is only one step (because it can't choose to move further than its usual move). Big pawns are effectively unaffected by conveying the king. Note that conveying the king means you cannot get past this restriction by having a second small piece on the big piece and claim that it's doing the piloting. The king will always insist on moving only one step.

Little pawns as pilots cannot move the big piece they're on back towards their own side, though they can move it sideways if the piece they're on is capable of such. This includes riding opponent's pieces, which means if a small pawn steps onto an opponent pawn, they will have no effective moves they can pilot the large pawn to do, as the large pawn cannot move backwards towards its side. However, if there is a second little piece on the pawn, this restriction can be ignored as it's assumed the other piece is doing the piloting in this case.

Besides the exceptions with the king and pawns, big game movement is the same as regular Chess regardless of who is piloting the large piece, and which side they're on. Meaning big pieces cannot move in ways or directions that they wouldn't otherwise be able to move in and they can't capture friendly pieces.

If a big piece is captured then it is removed from the game along with any small pieces riding on it. The large king is no exception to this. However capturing the large king does not end the game. It is only the small king that counts for check. However, as any piece can carry the small king, threatening that piece triggers the "check" state and the player in check must be out of check by the end of their move. This includes putting their king on an opponent piece that their own large pieces are somehow threatening making that an illegal move, regardless of who is piloting that piece, friend or foe. If the piece carrying the small king cannot move out of check or deliver the king to a safe piece, friend or foe, by the end of their move then that is checkmate and that player has lost the game.

Capture rules don't change based on who's piloting the large piece. In other words, the large black can still only capture large white pieces, even if it's piloted by a white piece. This means you can put yourself in threat of check. This also means if the king switches to a large piece of the opponents side, the opponent must either commandeer an opponent large piece to threaten their own piece being ridden by the opponent king, or they must threaten the king on the small board.

As with QuickChess, pawns can only promote to capture pieces. On the large game works by swapping the large pawn with the piece of choice and replacing the small pieces in the same position they were on. Small pawn promotion occurs whenever the pawn reaches the furthest side of a piece on the last rank.

Small game movement is similar to standard chess except that the small game board is constantly shifting on the heads of the large game pieces. Small pieces may move from piece to piece as long as the necessary spaces are adjacent and such moves do not cross any gaps. Small piece's moves can even span across multiple pieces so long as there are no gaps in the legal movement spaces, with the exception of the knight which can jump across gaps, as long as there is a space for it to move into.

There is no castling or double pawn moves.

## Winning the Game

Putting your opponent's small king in checkmate or putting any large piece carrying the small king in checkmate wins the game. Victory also includes trapping the opponent with no valid move.

## Small Piece Movement Examples:



The rook on the upper left cannot capture the knight because the pieces are adjacent. Neither can the bishop on the lower left capture the rook because, even though their large pieces are diagonal, the square it needs to travel is missing. However with a piece in between, even though it's an enemy piece, the rook on the upper right can threaten the knight. So, too, can the black bishop travel in this way because the piece diagonal it needs to travel is complete when it starts from the square it is on.


Small knight's move is a hop, and therefore they aren't constrained by what's between them, as long as there's a small square to land on that's an L-shape away.

## Notation

In standard Chess each place on the board can be indicated with a letter/number combination. The vertical rows or files are labeled A through H from white's left or queenside. The horizontal rows or ranks are numbered 1 to 8 from white's side to blacks. Each piece is given a single letter abbreviation as well. K for king, Q for queen, R for rook, B for bishop, N for knight. The pawn has no letter and is indicated by its coordinate alone.

There are 2 chess sets in Meta Chess. A big set and a small set. The big set uses the standard setup and notation with capital letter for the piece. On each big piece there is a small $2 \times 2$ board. These are indicated in similar fashion with a lower case letter for the piece with a colon separating the two for clarity. So too the smaller pieces are indicated with the same letter as the bigger pieces but in lower case indicate the bishop in the first rank, second file on the knight on the fourth rank, eighth file, you would use the notation Nd8:ba2.

Same as with standard chess notation, unnecessary information about a move can be omitted for brevity.

## Credits

## Meta Chess was made by Joseph Larson for the 2012 Tinkercad/Makerbot Chess contest. The original Meta Chess piece models are available online at https://pinshape.com/items/31179-3d-printed-metachess-chess-on-chess-game-variant

If you have played Meta Chess and have suggestions for adjustments to the rules please feel encouraged to provide feedback.
http://3dpprofessor.com/
http://www.youtube.com/user/mrjoesays
https://discord.gg/rpwXqE5
http://twitter.com/3DPProfessor
http://www.facebook.com/3dProfessor

## Rules History

28 March 2012 - Initial set of pieces and rules.

25 October 2014 - Revision for edge cases found in play.
2 February 2015 - Major rules revision changing the nature of the game from being two simultaneous games played at once with two moves per turn (one big, one small) to being large pieces controlled and ridden by the small pieces, based on a suggestion by BGG forums user Erluti.

12 December 2018 - Minor rules variations added to limit king movement to avoid the "Behemoth Boss" or "King Queen" scenario encountered in tests game. Basically the king boarded a rook or a queen and couldn't be stopped. Thank you Isaac Ruben for actually playing this mess of a game of mine.

11 January 2019 - Mini Meta Chess rules variation created, eliminating a page of rules dealing with castling and en passant. Good riddance.

