

Fuzzy-Logic Medieval Chess©2021

A Fuzzy-Logic Chess© Variation of Medieval Warfare

Fuzzy-Logic Medieval Chess builds on Fuzzy-Logic Chess to create game-play resembling a medieval battle, using the standard chess board. Pieces have different battle capabilities like their historical counterparts: mounted and armored knights and royalty, pikemen, infantry, and archers. The F-L Medieval Chess Capture Table shows how these different pieces fare in battle against each other. **Moving and capturing are separate actions, and UP TO three actions may be taken in each turn.** The game ends with the *capture of a King*.

CAPTURING PIECES Fuzzy-Logic Chess (F-L Chess) introduces uncertainty to the act of capturing a piece so that players must use **reasoning with uncertainty (fuzzy logic: probability)** in planning their strategies. The attacking player rolls a die to determine if a capture is successful. The die roll needed to capture a piece depends on the combination of the attacking piece and the defending piece, as shown in the Capture Table.

- C1. When an attack is successful, the attacking piece moves into the square of the captured piece.
- C2. When an attack is unsuccessful, the attacking piece remains in the square it attacked from.

Mounted Knights and Royalty

In F-L Medieval Chess, the King, Queen, and Knights may each move in any direction, and do not have to move in a straight line. Not counting the starting square, but counting the final square, the **King and Queen may move three squares**, and the **Knights four squares**. They **may not** jump over or pass through an occupied square.

- R1. The King and Queen represent the elite Royalty, more heavily armored than knights, but slower.
- R2. Knights and Royalty may capture an opposing piece in any direction (left, right, up, down, diagonal).
- R3. **Knights (only)** may combine movement with a capture in the same action, attacking any adjacent enemy piece *after their movement*. A Knight may **not** attempt a capture and then move afterward. A Knight receives a **+1 to the die roll if moving and then attempting a capture (surprise and intimidation from a charge)**.

The Infantry (Pawns and Bishop)

Pawns represent simple infantry with minimal training and arms, while Bishops represent pikemen with long pikes or halberds with formal training and experience.

- I1. Pawns may move **one square** and attack in a forward direction only, moving or attacking either directly ahead or to either forward diagonal toward the opposing player.
- I2. Pawns are never promoted after reaching the eighth rank (the opponent's home row).
- I3. Pawns **may not** move two squares forward when they have not yet moved in the game.
- I4. Bishops may move two squares in any direction, and may attack in any direction.

Archers (Rook/Castle)

The Rook represents a company of archers, who may move two squares in any direction. Archers may attack any piece by shooting over up to two squares (not counting the square with the Rook or the square with the enemy piece) in any direction (and does not have to be a straight line of squares).

F-L Medieval Chess Capture Table						
Die Roll Needed to Capture the Defending Piece						
Attacking Piece	Defending Piece					
	King (1stguard)	Queen (2ndguard)	Knight (knights)	Bishop (pikemen)	Rook (archers)	Pawn (infantry)
King (1stguard)	6,5,4	6,5,4	6,5,4	6,5,4	6,5	automatic
Queen (2ndguard)	6,5,4	6,5,4	6,5,4	6,5,4	6,5	6,5,4,3,2
Knight (knights)	6,5	6,5	6,5	6,5	6,5	6,5,4,3,2
Bishop (pikemen)	6,5	6,5	6,5	6,5,4	6,5	6,5,4,3
Rook (archers)	6,5,4	6,5,4	6,5,4	6,5	6,5	6,5
Pawn (infantry)	6	6	6	6,5	6	6,5,4

Fuzzy-Logic Medieval Chess Corp Command©

A Fuzzy-Logic Chess© Variation of Medieval Warfare

The **Corp Command F-L Medieval Chess** variant builds on F-L Chess Medieval Chess to create game-play resembling a medieval battle, using the standard chess board, with real-world command and control considerations.

The "armies" of chess pieces for command are divided into three "corp":

- A1. The King and Bishops are **CORP** commanders, each with one **command authority** that can be used in each turn.
- A2. Up to three actions may be taken in each turn, **one by each corp**. Corp command actions **ARE NOT** required in any turn, **so zero to three actions** may be taken in a turn.
- A3. Command authority may not be transferred from one commander to another.
- A4. The "left" side Bishop commands the three left pawns and the left-side Knight.
- A5. The "right" side Bishop commands the three right pawns and the right-side Knight.
- A6. The King commands the Queen, the two rooks (archers), and the remaining two center pawns
- A7. Each commander (King and Bishops) may command one action (move or capture) per turn, only for their commanded pieces.
- B1. The King **may delegate** any of its pieces to be commanded by either Bishop, at any time, but **no more than one delegation action per turn**. Limited to up to **SIX pieces** that can be commanded by a Bishop (no limitation on the King). A delegation continues, but may be recalled by the King in any turn, but this recall counts as a delegation action (a King may NOT delegate and recall in the same turn).
- C1. When a Bishop is captured, **his commanded pieces revert to the command of the King, but his command authority is lost** (the army may make one fewer action per turn, a serious disadvantage).
- C2. The game ends when the King is captured (the Bishops do not fight on without the King, but surrender).
- D1. **COMMANDER'S MOVEMENT:** The commanders (King and Bishops) may each move **one square** (but not attack/capture) in a player turn, **without expending their command authority**. Attacking/capturing by the King or Bishop "spends" that command authority for that corp. The King may spend his command authority to move up to three squares. Bishops may move up to two squares by spending their command authority.

A study of military science shows that the command capability and what is called "command-span" is a real limitation and constraint, affecting how historic battles have unfolded. Military doctrine and training discuss and consider the limitation of a single commander: the command-span has varied from one to seven subordinate units historically. The U.S. army doctrine centers on a command-span of three subordinate units, but it is not a ridged rule. One of Napoleon's military innovations was to formalize a corp structure with four infantry divisions, one cavalry division, and one artillery battery (a command-span of six), but this often varied with circumstances.