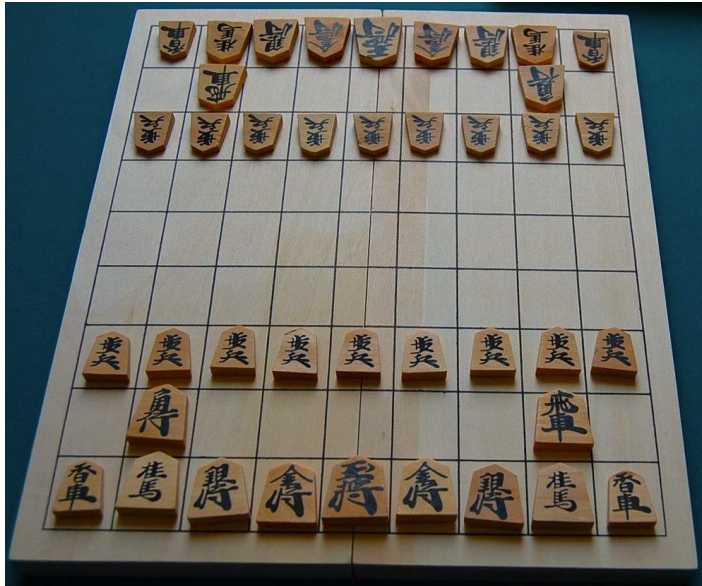


History of Chess

Chess has been around for countless centuries, throughout multiple cultures and historic moments. There are hundreds of variations and modifications around the game, ranging from the artwork of the game board pieces to ruling and playstyle of the game (Ancient Chess). A popular variation for example would be Shogi (seen in the picture below), which is common in Japan; containing the same objective to capture the opponent's king, but every piece can promote itself, rather than only the pawns. The origin of the game itself varies amongst rumors and opinions, as there is confusion and subpar evidence towards its exact establishment, but many sources state that it probably originated in India by the Gupta Empire, around ~600 AD (Chess.com). The form of chess that was played in Europe was already being played in Persia about 1,350 years ago, when its land was conquered by Muslim armies in the mid 7th century. This game became very popular in the Muslim world, which was eventually carried out to North Africa, Europe, and Asia. Surprisingly enough, the modern

version of Chess has many similarities to the ancient game, which is actually easy to pick up and learn to play. For the game of Chess, the most important, well-known, and significant aspect



to have its own information

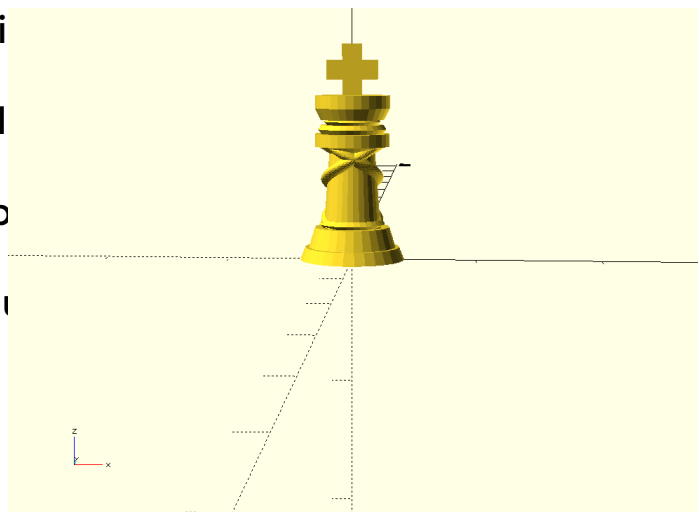
The most prestigious piece, yet infamous for being essentially useless, the King is one of the few pieces that is kept the same

in most variations of Chess. The Gupta Empire designed its pieces for each arm of the service; hence at the time, the King corresponded to the Indian emperor, also known as the “Schah-in-Schah” (UWW). Translating to “King of kings”, an emperor does not represent a warrior, he is a wise ruler. The battles were fought by the generals, an empire was defeated when the emperor was captured; exactly why a game of chess may only be won once the enemy king is captured. This is the reasoning behind my implication in making my design in OpenSCAD for the King to be

the tallest chess piece. While the King is not necessarily the most useful piece, theoretically it is the most important—how would you fight without a leader? The most interesting and powerful piece, the Queen did not actually originate as a female, nor was it regarded as a queen. The Queen was created by the Persians, identified as a male, as the advisor of the king. This piece was regarded as the Firzan, and could only move one space diagonally, which was basically used as the King's Shield. It was only until the game was completely changed by the Spaniards in the 15th century when the Queen was given extreme amounts of power, claiming the title of being more powerful than both the Rooks and the King. No reasoning behind this modification was found, although sources assume it was because of Queen Isabella I of Spain (USCF). As seen in my designs created via OpenSCAD, I created a spiral design, that wraps around the center of the primary base, all the way up to the head of each chess piece. While there is no significance or symbolism behind the reasoning to this double-helix, I implicated the usage of symmetry and Cavalieri's Principle to complete this set. Every piece, with

exception of the King and Queen, have spiral designs that are equal in height and volume to one another, and if split directly in the middle on the Z-Axis (within OpenSCAD), the spiral will form its corresponding mirror image. This was added to follow the lore of Chess, in which everything in the game comes down to the laws of balance; you must strategize and balance out your remaining pieces with your opponent, whilst simultaneously try to disrupt the balancing of their own pieces. All in all, there are many variations to the game of Chess, with many changes and differences throughout cultures around the world. Personally, my favorite is modern chess due to the endless strategies and techniques that you are able to perform with the set rules today.

The greatest part about Chess is different, since every move will giving you an easier way to improve has significantly improved through centuries, and it is up to you to wonderful game of Chess.



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