

Assisting Annex Chess Club Players who Struggle to Record Chess Moves

Annex Chess Club (ACC) tournament players with a dysfunctional dominant upper limb are often unable to record their own chess moves effectively. This results in either the ACC having to provide volunteers to record the chess moves for the players, or for the players to struggle to record their own moves in an inefficient manner. Due to the ineffective nature of both of these methods, the aim of this Request for Proposal (RFP) is to frame an opportunity to aid these players in recording their own moves in a desirable manner.

Our opportunity interacts with many important stakeholders, and thus it must meet their needs thoroughly. The primary stakeholders are the users of the solution design who struggle with recording their chess moves due to various conditions. Our secondary stakeholders are the tournament organizers (TO's), volunteers, and the opponent of the user. These stakeholders' needs require that the design is: able to be operated solely with the non-dominant arm, time-efficient, not distracting, and does not provide the user with any way of cheating. The success of our design depends on how thoroughly we meet the requirements of our stakeholders.

This leads to our requirements framework, which is built around four main goals taken from the needs of our stakeholders: effectiveness, legality, convenience, and longevity. Effectiveness emphasizes the importance of our design being quick and easy to use with only the use of the non-dominant arm. Legality focuses on the design being allowed for tournament play according to FIDE rules, with an emphasis on not being distracting, and not having access to chess aids. Convenience requires that the design can be set up easily by the TO's and volunteers, and finally, longevity asks that the design requires infrequent maintenance and replacement. A successful solution will meet the demands of each of these goals and their corresponding requirements.

There are many current solutions on the market each with a unique approach to the opportunity. However, these are all unsuccessful solutions as they fail to meet the needs of our stakeholders and requirements framework. These current solutions still show potential, and thus are used as reference designs for a more successful solution. They include: a multifunctional custom chessboard with an interactive display, and an electronic scoresheet mobile app meant for chess tournaments. Both of these designs fall short of the requirements for our goals of legality and convenience, and are thus unsuccessful.