

Tic Tac Toe game project (TTT)

Abstract

Tic Tac Toe game was a school project developed by a team called AI team with AN Panharith, MOUN Makara and CHEASIM Samnang as members in Faculty of Engineering of Royal University of Phnom Penh. Simply, TTT is a paper game for two players taking turn for their moves. The game victory is defined by five straight moves in any direction. In the name of school project, TTT project gave us two significant purposes. The first one was to create a good game with complete functions. The other, the particular one, was to develop a very smart artificial intelligence. Once again, the main aim of our study was to seek methodologies and algorithms for implementing our AI. Thus, we determined two steps to create the AI. The first one was physical strategy that meant developers needed to be familiar with manual playing. The final step was to converting from those physical strategies to instructions or codes using Alpha Beta pruning algorithm (Min-and-Max cut off). By using these two steps, AI is able to find the best move against its opponent. For a whole year, we worked extremely hard on this project. As a result, we finished the project successfully. We had a complete game with one player and multi-players options, high score feature, save and load game. Especially, we created a very intelligent AI used against player. In conclusion, we could justify that the project was completely 100% done. It bring us an unforgettable experience with AI. Moreover, this project made a glorious victory as the Silver Award as the best year two project of the year in FE.

Keywords: TTT is a short term of Tic Tac Toe. AI is a short term of Artificial Intelligence. FE represents Faculty of Engineering of Royal University of Phnom Penh.