

## ABSTRACT

Along with the development of information technology, game development has tremendous prospects. There are many opportunities offered by the gaming industry, one of which is game design. Games are one of the big industries in the world today. The development of games is so rapid starting with various types, ranging from games that can only be played by one person (Single Player) to games that can be played by several people at once (Multi Player).

In games, there is a need for artificial intelligence. Artificial intelligence is one of the technologies created to facilitate the resolution of the problem. An example of an artificial intelligence algorithm is the A \* (A star) algorithm that helps find paths with the sum of costs and heuristic values.

A \* (pronounced "A Star") is an algorithm to find paths that have little cost from the starting point to the destination. A \* also considers the costs previously achieved to determine the next path. Therefore the writer will conduct research by making games. Where in the game there are circumstances in the form of coordinate-based plots that have heuristic values. Then one algorithm that is suitable for the movement of NPCs in this game is the A \* algorithm

Keywords : *Game, NPC, A\* ,Cost, Heurist*