ABSTRACT

Artificial intelligence is a computer science that learn about how machine able to do like human or even better with applying intelligence into a machine system or computer. Therefore this research applied Artificial Intelligence (AI) as a base for NPC movement in fighting game so that user can experience playing against human or even better. One of the algorithm that can be used is Finite State Machine. These algorithm uses four principle which is State, Event, Transition, and Action. Researcher hoping that the result of the Finite State Machine algorithm which implemented as NPC movement can achieve non – repetitive movement so that the game even more variative and challenging for the user.

Based on the research that has been done that the results obtained from the movement of the NPC are in accordance with the state that has been created and the NPC provides a different experience based on the conditions and gameplay of the user. By using 3 types of tests where the player does not take energy ball items at all, a presence of one energy ball item in the match, and the presence of two energy ball items in the game. In the first test, the NPC won 80%, in the second experiment the NPC won 60%,and in the third experiment 40% wins.

The results obtained from testing 54 respondents to the game "Fighting Rumble" with the Finite State Machine algorithm with the criteria of 13 teenagers (10 -19 years) and 41 adults (20-60 years) around 42.6% of the players feel like and are interested playing the Fighting Rumble game, and around 42.6% of respondents found it difficult to fight the NPCs they faced at stage 1.

Keywords: Artificial Intelligence, NPC, Fighting Games, Finite State Machine