

ABSTRACT

Game is entertainment in the form of multimedia that is made attractively for the purpose of entertainment and also to get inner satisfaction. In a game, one of the elements that can be considered important to support the game and the reality of the game world is NPC (Non-Player Character). NPCs can make a game more lively and real in terms of how it moves.

Therefore researchers will make a game entitled "Happy Farm" this game is a farm game, players will be directed to maintain and build a farm in which there are several characters including: Chicken, Cow, Goat as a pet or animal, then there is a dog as guard animal from the pet itself and there is a Bear as a predator or enemy in the game. In making this game the researcher uses the finite state machine method. The finite state machine method is a control system design methodology that describes the behavior or working principle of the system using the following three things: State, Event and action.

Based on the results made, researchers can make Non-Player Character behavior on guard animals in the "Happy Farm" game by using the Finite State Machine method, Guard animals will appear if players buy guard animal items with coins, then after the coins are collected and buy guard animals the guard animals will appear and carry out their duties, namely guarding farm animals from predatory animals. In user testing, there were 26 respondents, namely 25 respondents with an age range of 21-30 years, and 1 respondent with an age range of 16-20 years, then as many as 84.6% of respondents considered this game suitable for children aged under 13 years, and as many as 61.6% respondents feel that games provide education/knowledge to them.

Keywords: *Game, farm, Non – Playable Character, Finite State Machine.*