

## **ABSTRACT**

Cloud Gaming is part of a cloud computing service that processes an interactive gaming application remotely and outputs video to the client computer through a network intermediary. With the existence of Cloud Gaming, users can run game applications with higher specifications than the user's computer.

However, some players cannot feel the excitement of playing games due to physical limitations, especially in the hands. To overcome this problem, the authors create and analyze gyroscope sensors using Arduino Microcontroller as a controller in a game based on cloud gaming to find out the results of the controller performance.

From the test results, the client requires 0% GPU usage, 24-27.2% CPU usage and 684.8-702.2 MB RAM to play Neverball. The client requires 0% GPU usage, 27.4-37.8% CPU usage and 893.8-1008.2MB RAM to play Dragons Dogma. Framerate achieved by the client in the Neverball game is worth 44-45 FPS and in the game Dragons Dogma, the Framerate achieved is 43-49 FPS.

**Keywords :** Cloud gaming, Arduino, Gyroscope Sensor