

## **ABSTRACT**

*Traditional games are one of the cultural heritages, which are usually in the form of activities people do to spend time and entertain themselves. As time goes on, the game is becoming increasingly obsolete as smartphones and computers are becoming more and more accessible. In order to maintain the traditional game, the creation of a hopscotch based game was started. The game that will be used is hopscotch.*

*The motion capture technology for this game will use the GY-91 sensor, and the data obtained from the sensor will be sent to the application manually. This tool will be paired to the "stone" that will be used in the game. In the making of this tool, the GY-91 sensor was able to obtain several of the accelerometers, gyroscopes, and magnetometers. The data used in the game is data obtained from the magnetometer. The data obtained from the sensor will be collected in serial monitor and it'll be transferred to the application part via email.*

**Keywords:** *Motion Capture, Traditional Games, Hopscotch, ESP32, MPU-9250*