ABSTRACT

At the age of 5 to 14 years is a period of growth and development for children because they are developing gross motor skills and have a high sense of curiosity. As a result, children can experience injuries or accidents due to the activities they do. Injuries to children that occur can be caused by falls, so the role of parents in supervising children is very important in maintaining children's safety. For this reason, it is necessary to have a tool to monitor children's activities, especially when children happen something like falling. Through these problems, researchers have the intention of making a fall detection device for children using an MPU6050 sensor that will be connected to the user via telegram. In addition, it uses an INA219 sensor to see the voltage used and the user can know when the battery life's. The results of detection testing in children received recall of 77%, specifity of 81%, precision of 77% and accuracy of 80%. Pillow detection testing is needed to compare with non-living objects, the results get a recall of 94%, specifity of 100%, precision of 100% and accuracy of 95%. The test results of the INA219 sensor on the battery show that the sensor works well when the device is turned on and the condition is sent to the telegram notification.

Keywords : *Children, fall, MPU6050, INA219, Telegram*