

Abstract

Natural disasters are natural events that can have a large impact on the environment that experiences them. Most natural disasters are difficult to predict and can do great damage. Currently there are many uses of robots in the process of Search and Rescue (SAR) such as mapping the scene of a disaster or searching for disaster victims. Usually the robot used is an all terrain robot which is equipped with a surveillance camera to stream video so that it helps the rescue crew in seeing the scene directly without entering the location. This research will focus on making surveillance cameras for all terrain robots combined with the MPU6050 where the camera can change video rotation when the camera position is reversed. The camera is also equipped with face detection and face tracking with the Kalman filter.

Keywords: all terrain robot, face detection, MPU6050, kalman filter