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CS35L Lab 8
Assignment 10

Introduction

Autonomous Data Machine known as the K5 beta prototype or K5 security guard robot. This robot is a fully autonomous robot. It serves to predict crimes in school, shopping mall and neighborhood. The robot can detect crime using a variety of sensors including video camera, thermal-imaging sensors, a 360 HD video to capture the thief and a laser range finder and air quality. In other words, the robot can detect crime and noise in the neighborhood. It also provides the real time air quality in the school and other places.

Background

K5 is actually designed by Knightscope.Inc. Interestingly, the company is found after the Sandy Hook's tragedy few years ago. The robot is serving the purpose to solve the lack of security guard in some schools around the nation. As the CEO and founder William Santana Li told the social media, "you are not going to have a armed office in every school". This creation of this robot is not only to solve the lack of security guard in the US nation, but it also serves to prevent crimes in our neighborhood.

Summary

K5 has height 60 inches, length 36 inches; width 32 inches and weights 300 pounds. K5 can move 18 miles per hour, but the normal speed is at 1 to 3 miles per hour. In terms of the stability, the robot itself is able to construct a geo-fenced perimeter in the real-world geographical area that makes it stay within one area. Second, K5 is capable to create a set of data in some coordinate system to show 3-D image of the surrounding in the geo-fenced area. One important technology is optical character recognition; the k5 is able to detect criminal record through facial recognition, and can scan up to 1500 license plate per minute. It will alert the local policies if K5 finds criminal records. It also have the ultrasonic sensor to detect object in surrounding and its movement and will alert the local policies if they find a car is over speed.

Results

The company is still testing the K5, but K5 starts to work in some small areas, such as parking log and shopping mall. Interesting, the Uber actually hire the Robot at wage \$7 per hour to work for them. K5 is only available in California. The K5 is an amazing idea, because it incorporates a lot of advance technologies. However, it remains a lot of space for people to develop this robot.

Opinion

I believe that there are pros and cons for this robot to work for human. On the one hand, K5 will solve the lack of security guard in the nation and predict crimes. On the other hand, although the k5 can detect criminal record through facial expression, it cannot stop crime in a real time. In a economical sense, the question is will the robot take away our job opportunities in the future.