Bringing Back 'Sight' with 'Touch': Making Wearable Walking Assist Device for Blind

Lee, Geonyeok
Shin, Yuhwan
Han, Seungmok

After knowing the hard life of blind people and going through some survey, we recognized blind people’s inconvenience and planned to make some device that can help them. In this study, we have developed a walking assist device for the blind using Arduino and pin screen model. We used ultrasonic sensor to recognize the position of obstacle, and servo motor with sticks to deliver the information to the user. In addition, we made 2 information delivery method – braille method and intuitive method – to compare which is the better method. Also, we made a new method that can measure the height of the obstacle with two ultrasonic sensors by using trigonometric function. Finally, we tested our two information delivering method and found out that intuitive method is more efficient due to its time-efficiency. Moreover, by using smaller and more accurate sensors and parts, we were able to make better prototypes that can be used in real life. We are now searching now where and how can we apply our height-measuring method. Hopefully, we will make an finished product that can be attached inside the gloves to provide safe walking to the blind people.