The Purpose

Currently there are thousands of blind peiple all over the globe. These include people from low sight seeing to complete lost of visual. They find it very difficult while crossing the road or reaching to their respective destination with the help any other individual. The traditional stick cannot help to detect the obstacles in front or the potholes in the way. It is outdated. Hence there is a need to update it using today's technology

The Technology

The smart stick for the blind as the name suggests is a device for the visually impaired to guide the user to respective destination and avoiding to collide with the obstacles. It uses two ultrasonic sensors HC SR 04 to detect the depth below or the obstacles in between. Along with that it uses Arduino and Raspberry pi as the main controller. And 1sheeld as the Bluetooth interface between the controller and smartphone. Whenever there is any obstacle in front. The sensor will detect the distance from the obstacle and send to the controller. The controller will then convert in audio format. Now a days there is a yellow line in the footpath which is meant to for blind people. So, we used a camera module which is controlled by raspberry pi. The camera detects the yellow line to tell the blind person whether he is on the track or not.