



CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

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Project Title Seeing Reality	
<p style="text-align: center;">Abstract</p> <p>Objectives The objective of this project is to help people who are visually impaired by creating a device that enhances their vision.</p> <p>Methods 2 Eye charts, iPhones, 3D printer, laptop computer with Xcode and headsets. 2 apps were designed for this project, one was text to speech, the other was a zooming app. Tested subjects 10 feet away from eye charts, recorded how many letters on each line was spoken correctly. Do for all lines.</p> <p>Results We tested 5 subjects with 2 vision charts. Our zooming application allowed the one of the subjects to read up to 9 more lines on a vision chart than they could with their raw vision.</p> <p>Conclusions We built a device that can assist people with visual impairments. To do this, we designed two apps, one that does text to speech, while the other uses zoom functionalities. Our device was able to help people with visual impairments go about their daily lives as a person with 20/20 vision would.</p>	
Summary Statement We built a device that can assist people with visual impairments in their daily lives.	
Help Received We designed our apps after doing research on which platform and language to program with.	