

aslo.



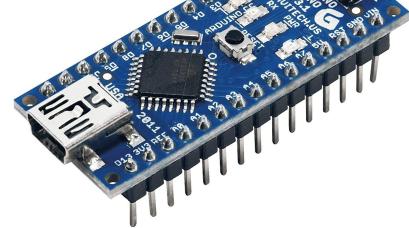
STRANGER  
THINGS



1 in 4

People use  
sign  
language  
around the  
world

Hearing-Impaired Person

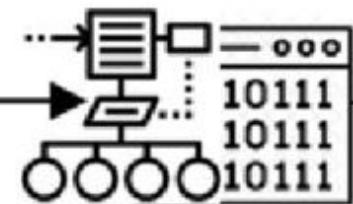


Normal Person

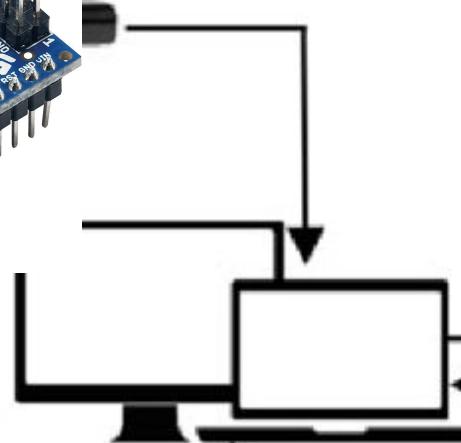


Record New  
Gesture

Database



Dynamic Time  
Wrapping Algorithm

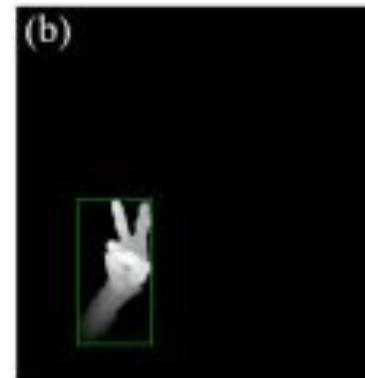


Sign-Language  
Translation Application

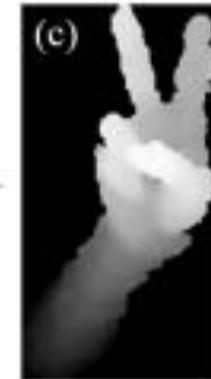
Original depth image



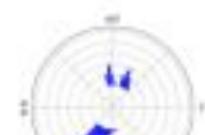
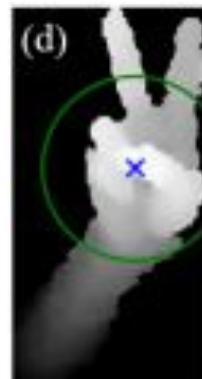
*SI*: Hand detection



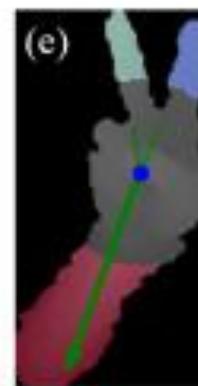
*S2*: Hand cropping



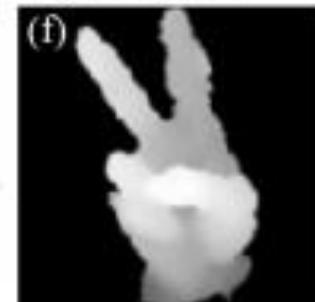
*S3*: Palm region approximation



*S4*: Arm region segmentation



*S5*: Arm region removal  
*S6*: Direction normalization



Preprocessed  
depth image

Can be iterated for better segmentation



Real time view

2021

01:24 00:00



### Spoken Text

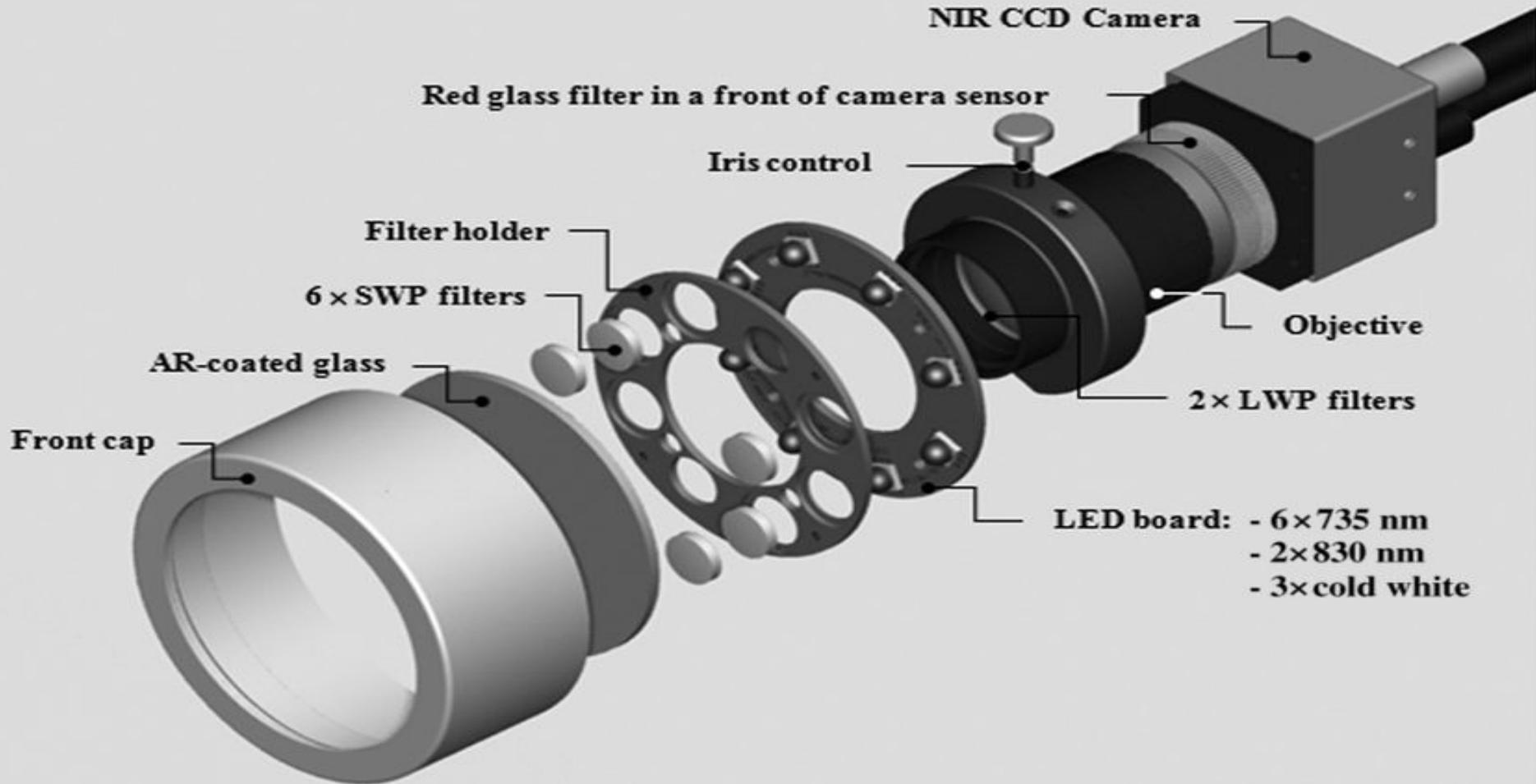
Will Janice be at work  
tomorrow? I need someone to  
cover my shift.

Alex Shibu



Read





# **The Sign Language Analyses (SLAY) Database**

A person wearing a green button-down shirt is shown from the chest up. Their hands are positioned in front of them, with their fingers spread wide, creating a sense of openness or communication. The background is a plain, light-colored wall.

A **better** future for  
communication