



Sullivan

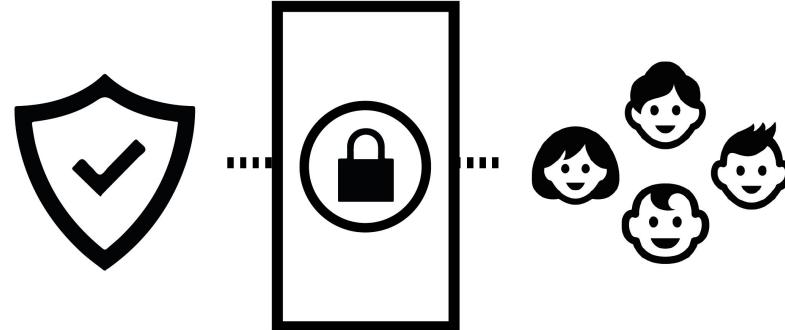
The Door That Actually Knows You



Why

From a metal key to passwords and fingerprints, **home security** always has been considered important in various forms.

In the new era of smart things, it is **face recognition** that will help us enter our houses. Sullivan is a **smart door** that everyone needs to protect themselves and their loved ones.

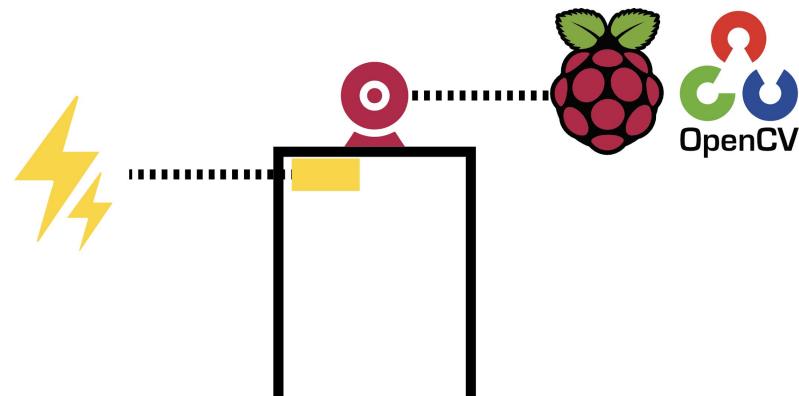




How

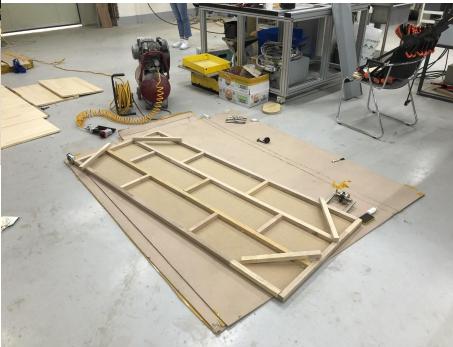
Sullivan is a door with a **Raspberry Pi** that has a **camera module** connected to it. **Open CV(Computer Vision)** is ready to be trained for recognizing owner's face.

Once it is trained, it figures out whether it should allow people in or not. The door lock is controlled by **electromagnet**, which can efficiently open and close the door.



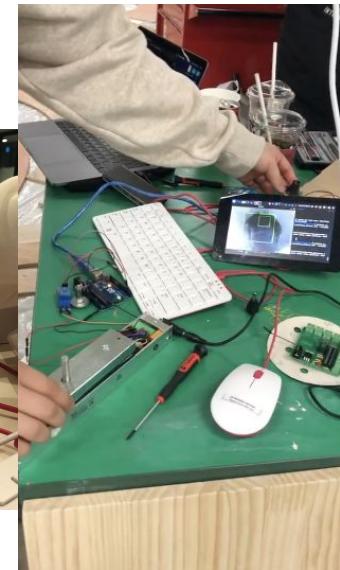
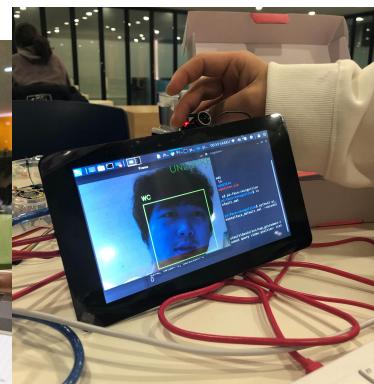
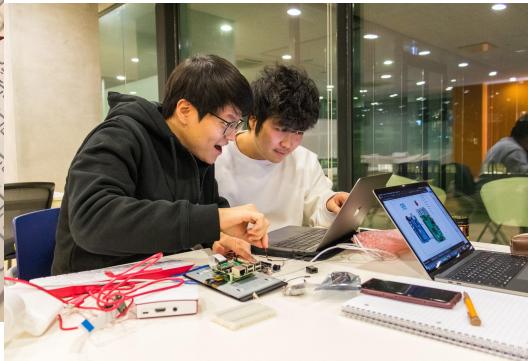
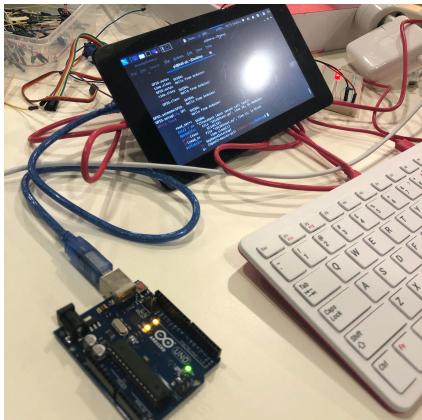


Door Making Process





Face Recognition Process





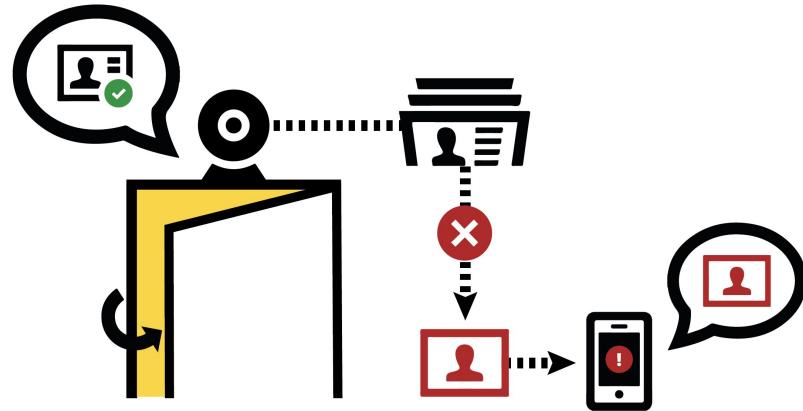
Sullivan Prototype and Demonstration



What

Sullivan **watches people's faces** with the camera installed. If a person near the door is recognized from the database, Sullivan **opens the door** for that person.

If not, Sullivan stays locked and silent, but will **send the screenshot** of the stranger to the homeowner.





**...and a HUGE thank you for
everyone in the IOT class,
awesome Fablab people,
and one and only Prof. Todd
who brought us all together
for this amazing project.**

We'll miss you and this project!

