Hi my name is Pontus Olsson and this is my co-workers Jonas karlsson and Martin Eriksson!

In this presentation we will cover these topics!

**TOPICS COVERED**

Introduction – Here I will talk about our **starting idea** and the **actual idea** that was decided upon. Also the **hardware and software** that we have been using during this project.

Aim and purpose - Jonas talk about the aim and purpose of this project were we **sought to be and what we wanted to create**.

Method and implementation – Martin take over and talk about how we **created our application** and cover all its areas and Jonas will talk about Arduino.

Results from this project – Jonas step in again and talk about the results from this project **were we ended up**, and **how** we managed to **create this project**.

Conclusion – Were I will step in again and talk about the conclusions we have drawn from this project.

Further work – Martin step in again and mention some of the further works we could have done with this project.

**THE STARTING IDEA**

Our **starting idea** was to create a robot that could **talk back** to its user. And that would also only **respond to certain people** by recognizing their voice.

We were also determined to create this robot and program him in **C**, by creating our own **filters** for the voice recognition.

Our goal in the start was also to create the robot so he would be able to **recognize a person’s** voice and **give a certain response** depending on which person who talked to him and what he or she said.

**THE ACTUAL IDEA**

After a lot of thinking we decided to create a robot that would **give a certain output** by different commands that was given to it, and in this case we choose to **lit lights** depending on which command that was spoken.

We also changed our programming language to **Java** instead of C for the voice recognition. Because we made research about making filters in C and it was extremely hard, and unnecessary work with small time frame we had.

And because it was a **requirement** for this project we added a database to our application.

**HARDWARE AND SOFTWARE USED**

Here are the hardware and software that was used during this project

Bluetooth unit this was connected to the Arduino board for **receiving and sending**.

Arduino atmega328p is the **programmed hardware** we are using to **receive commands** from the Bluetooth unit and **execute the output**.

Android studio and Arduino playground was the **environment** we choose to program in.

SQLite was used as our database because it was already implemented in Android studio.

**CONCLUSION**

So can we improve quality of life using voice recognition?

I would say yes! Voice recognition can be implemented **almost everywhere** and it can surely make it easier for people with **handicaps** doing things around in their home if they could talk to the house and it would do things for him or her.

Like “House! Make me some coffee” and it would respond with “of course sir or miss”. Or turning **all your electronics, and lights of** in your house with only one command.

The options for voice recognition implementations are **very big**!

But one big question is: **Is voice recognition a reliable input**?

I would say that it would work well but **not as good as it should**, there is still some **development** that needs to be done for the voice recognition systems to be **very accurate**. It would not be very funny if the car **misheard** you and speeds up to 250Km/h for example.

So there needs to be **more development** in the recognition system software. And if you would use voice recognition software in your house or car, it would be a must to have it **recognizing different people’s** voices so not the little kid in the backseat says 300Km/h!! It would only respond to the parent’s voice and so on.