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

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

Results from this project – Here will 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 – Here will 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 certain 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.

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

Arduino atmega328p, that was provided to us from haydar, and is the programmed hardware we are using to receive commands from the application and execute the output.

Android studio was the environment we choose to program in.

SQLite was used as our database because it is already implemented in Android studio and was easy to learn and understand.

**CONCLUSION**

So can we improve quality of life using this voice recognition we have created?

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.

It could also be implemented with the intelligent cars we have now, the most high tech cars can almost drive on their own so why not use voice recognition as an input for driving slower or faster. Activating cruise control or calling your mother from the car!

The options for voice recognition implementations are very big!

How would we implement this then? By creating a more advanced hardware and software so it would match the desired implementation! If it is a house or a car etc.

But one big question is: Is voice recognition a reliable input for or spoken commands?

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.

As mentioned before this is not a reliable input because 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.