Reading Buddy

Class: 6A

School: Internationella Engelska Skolan Krokslätt, Göteborg, Sweden.

Project Name: Reading Buddy

Cover page -

Reading Buddy

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Idea description - Currently, a big problem we have in society is that younger kids (about 3 - 10 years old) don't read or get read to, enough. Because of this, many children have a limited vocabulary, and may struggle to express themselves in social situations. My idea is called "The reading buddy", and it's overall function is to both read, and to get read to. Children will be able to, next to this robot, practise their reading skills without experiencing any pressure, or the need to read perfectly. Pressure is a very common feeling among young children, when reading out loud to people they don't feel comfortable with. The robot will never run out of patience, and it let's the child learn from his/hers mistakes. The Reading Buddy could also help children pronounce words correctly, and explain words with the help of a "Children's Dictionary". It will also make reading more interesting and fun, through a reward system. This reward system would be a game that the kids would be able to play once they have read to the robot, or when they have listened to a story read by the Reading Buddy.

Target group

Preschool, and school are the target groups that will benefit from the robot. A few adjustments could be made for the robot to benefit for example Medical care as well as schools. The robot could for example be beneficial specifically to children with different disabilities or needs, and maybe helping them express themselves.

Design -

My robot would be around half a meter tall, and 10 cm wide. I'd like it to look like a classic robot, that will encourage children to read, in a fun way. The robot would have an ipad - sized screen in the stomach area where the kids would be able to play games after reading. The form of the robot will benefit it's function as it's enjoyable, pleasing design will make children excited about exploring the robots functions, and reading.

Link to TinkerCad design: https://www.tinkercad.com/dashboard

I have a sketch in my notebook showing the design as well.

Technical solutions

The Reading Buddy will run on rechargeable batteries, as it is a choice that is good for the environment. Rechargeable batteries are overall better to use than regular batteries as they can be used many times and are rechargeable (thereby the name). Regular batteries can be used for a short amount of time, and then have to be tossed away and replaced. Rechargeable batteries last for 2-7 years, and are therefore a better choice. The reading buddy would made out of sustainable hard plastic, with a frame for the ipad, where you can choose story and game. On the ipad, you can choose books that are on a suitable level for the child. It will contain something for every child, for example kids with disabilities, kids who are currently learning a language, and kids who have a higher reading level. The robot will

also have two speakers on both "cheeks". This is what each story would be heard through.

Threats and opportunities -

Replacing humans with robots can both be beneficial and dangerous. One of the dangers of wanting to replace humans with robots could be that people working for example at factories, or with driving taxis may lose their jobs. This is due to the fact that their jobs could easily be done by robots and artificial intelligence instead. Another example of the negative effects of robots in society, is that we may stop communicating with other humans, and just rely on the service of robots. The positive effects could be that jobs that include hazards, such as build-site workers, or the military could be performed by non-living things. This would decrease the amount of people who get hurt or injured at work by a lot.
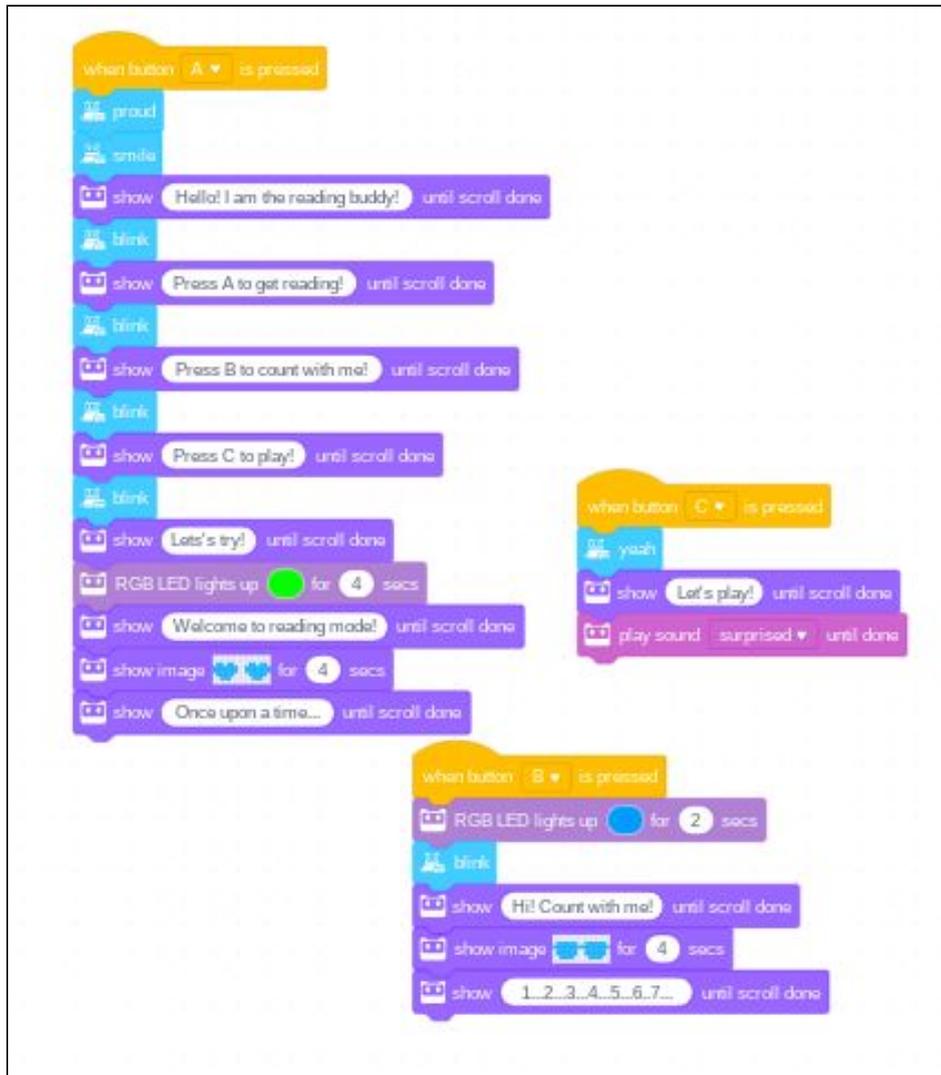
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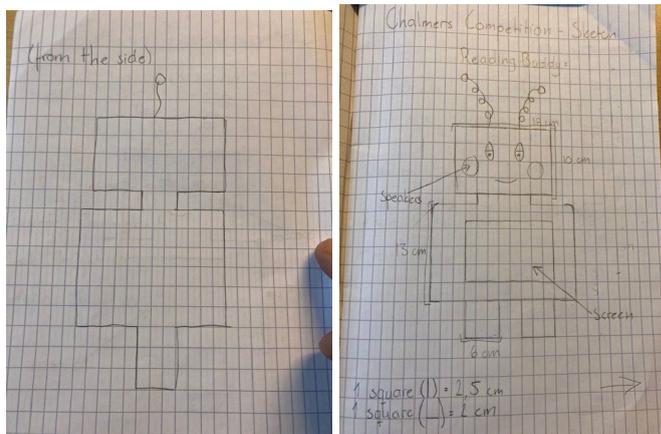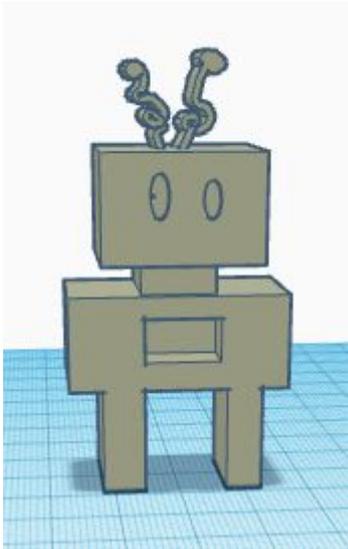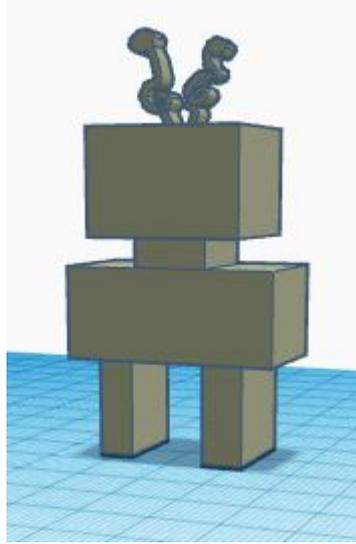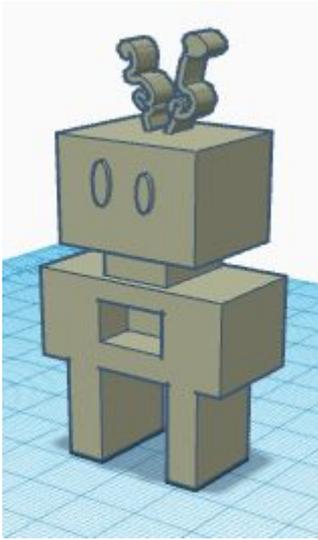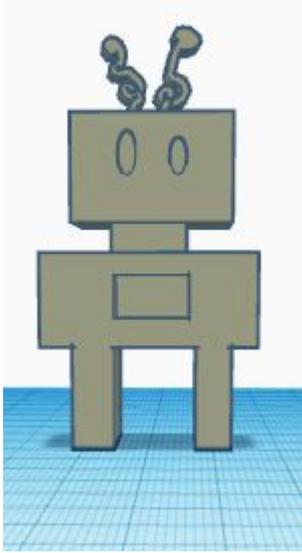
Flowchart that describes how the robot is programmed (in eg scratch)

Link to program: https://ide.mblock.cc/#/

* I have used cody rocky for to explain my idea and my programming worked by pressing   button A,B and C. Unfortunately, I dont have a video to prove it but my program (above) shows it.

Logbook - I followed the plan for this assignment and have answered all the questions in the document. Something I found challenging, but still very fun to try was using TinkerCad and designing the robot in that program. I had of course never tried that before, and it was fun to try. It was also quite hard to program the Codey to show the functions of the Reading Buddy, and when I am writing this I still have some improvements to make to the code but am soon finished. I am quite happy and satisfied with the work process, and liked working with designing a social robot.