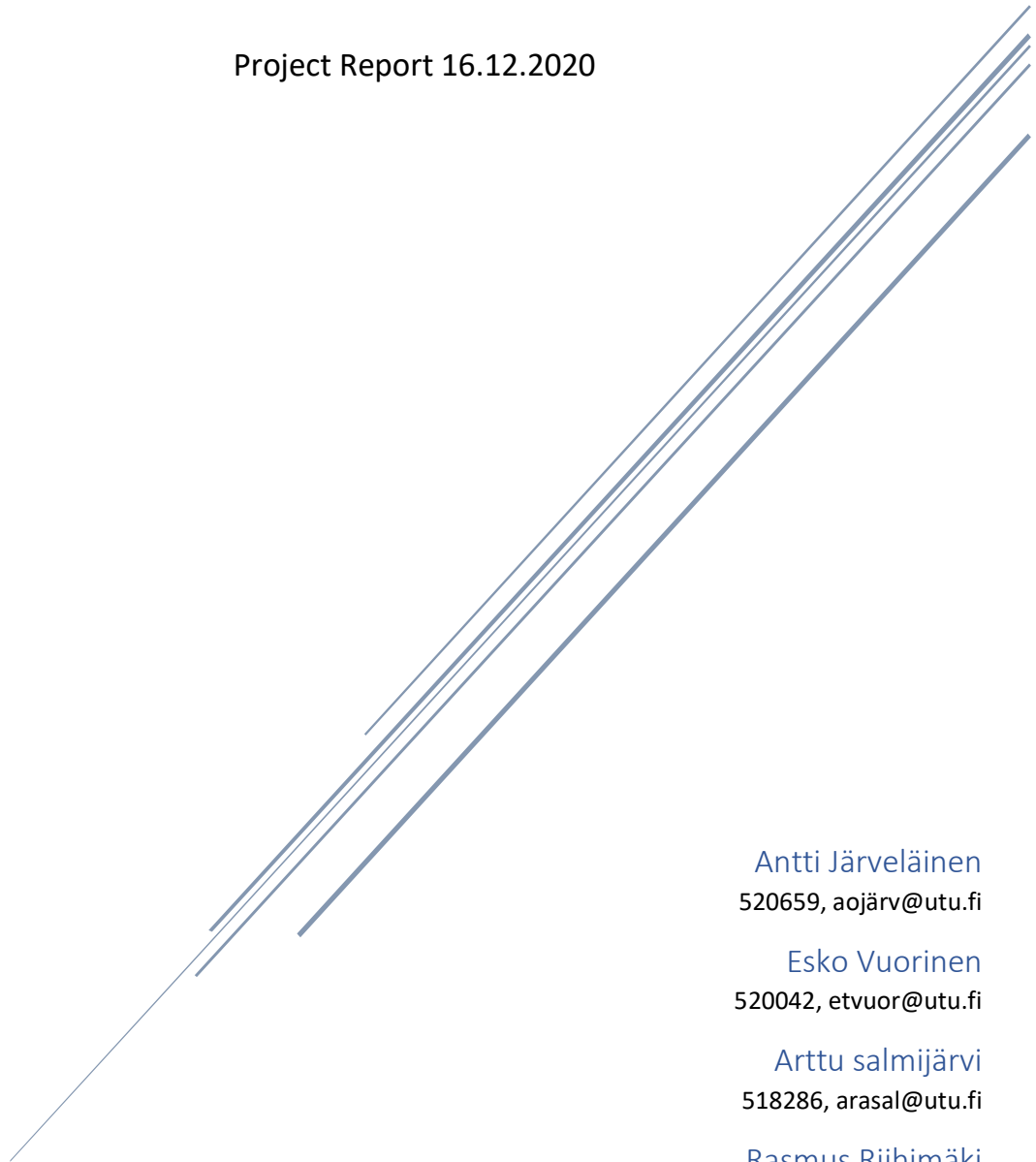DTEK0068

Embedded Microprocessor Systems

CHROME DINO-PLAYER

Project Report 16.12.2020

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Dino player – Functionalities

Atmega 4809-based dino player uses a light dependent resistor to detect obstacles in front of the dinosaur and a servo to press spacebar on a keyboard to jump over said obstacles. We put a black pipe around thelight dependent resistor so that it could sense values more precisely and effectively.

Dino player – Testing phase

The testing of the program happened in two parts. First part started by adding the servo to the board and testing how it would move. Second part was adding the light dependent resistor to the board and starting to test what values it would give us. However it wouldn't give us consistent values so we put a black pipe around it to make it easier to detect the black colors of the screen without light coming in from around it, after doing this the light dependent resistor started being consistent and we had no more problems with it.

Dino player – Programming practices

Program was coded using MPLAB X IDE and C language. Implementation of the coding standard BARR-C:2018 was used during the making of this project.

Dino Player – User guide

The program is fairly simple to use. You just need to clone the code from GitHub. After that you need to set up your device by connecting individual parts to each other. Then you need to find the appropriate distance to put the ldr, from your dinosaur, on the screen. After that you just need to run the code and watch the dinosaur jump!

Dino player- Link to GitHub

https://github.com/aojarv/sulpro_loppuprojekti