

SDP *Individual report 3*

by Georgi Koshov

My contributions towards the third milestone of the System Design Project were:

- I proposed, researched and designed a replacement of the NXT Brick using Atmega 328 microprocessors and Arduino ISP [the Arduino].
- Worked with Pavel on Bluetooth communication and developed the code for the Arduino.
- Tested a number of voltage and current amplification methods using op-amps, TIP120 transistors and L293D H-bridge integrated circuits.
- Together with Stefan developed an initial prototype of the Arduino on a breadboard.
- Designed a PCB layout using the open source software package Fritzing.
- Produced the final version of the hardware.
- I helped Stefan set up and learn how to use the Arduino IDE and gave him a quick introduction to working with electronics (or at least, everything I knew about it).
- Collaborated with Stefan in developing the Arduino firmware.

I have spent 40-50 hours since the second milestone on that project.