

Engineering, Pembroke College, 2016

- 5 The art of engineering is very important these days. This area is developing rapidly, and it is present in every area. Its importance is proved by the existence and development of technologies which are indispensable for our everyday life. I am particularly interested in electrical and electronic engineering, because it is a field that incorporates areas, whose utilization is destined for a great future. There are not many household appliances which do not contain a circuit. Robotics and mechatronics particularly interest me. The importance of these fields is growing day by day, and bigger and bigger parts of our life is helped by the different kinds of robots.
- 10 I have reached several remarkable results in physics. I was part of the team of three students that took the first place at the European Union Science Olympiad in 2014 in Athens. Last year I was eleventh in the final of the OKTV (it is the National Secondary School Academic Competition in Hungary), and came tenth in the final of Hungarian International Physics Olympiad qualifying competition.
- 15 I like DIY activities in my free time. Recently I constructed a Tesla transformer. As well as demonstrating the physical phenomenon really well, the physical appearance of the transformer is also very aesthetic. Consequently my school uses it as a demonstrative device in Physics lessons.
- 20 I have extra physics lessons outside the school. I have experience in programming different systems. I was a participant of a camp whose theme was based on robotics and bionics. There we built a line follower robot with the help of university students who visited robotics courses. Through this project we met a lot of problems that were new for us, and we learned how to solve them. During the camp we had courses on the themes of bionics, robotics and in other related fields (for example microfluidics).
- I have visited CERN. Via the English guidance I learned much about the working of the ATLAS detector and about the work in its control room. I had an interesting conversation with one of the CERN workers, in which I learned interesting information/things about the current problems and on the state of particle physics.
- 25 This visit happened shortly after the detection of Higgs boson and one day before its official announcement. During the visit I could feel the positive tension in the air caused by the event. The reason of the tension became clear for me the next day, when I was watching the press conference. During our visit the previous day we only got evasive answers to our questions concerning this theme.
- 30 In my free time I really like working with robots. I have been building LEGO Mindstorms robots for years with different functions. My goal is to build strong and well working mechanical constructions from Lego, then program them to deal with different tasks.