Poker Robot

Pazsák, Zsófia

My aim was to create a poker robot, not only for entertainment but also as a sparring partner which can be used to improve tactics. The first step of the project was to design and build a robotic arm which can grab, hold and move the poker chips. To be able to play poker, the machine has to perceive and recognize the chips and cards through the analyzed images of two cameras. This project requires specially designed cards and chips that both humans and the robot are able to recognize. Since I used color webcams, I considered recognition via colors the most effective solution. I wrote an algorithm that makes the robot think as a poker player: can make a decision in any kind of situation, can calculate the value of the cards, can make bluffs, knows when and how to raise, check or fold. To make the best decision in every hand, the poker robot uses Fuzzy Logic and it checks what kind of style you play in. To enhance the lifelikeness of playing, I applied a touchscreen on the robot, supported by a graphic program which can easily control all parts of the game and show more information. I developed a robot which can play poker with anyone. I mixed the advantages of real poker and online poker to make the game more enjoyable. There are a couple of opportunities to use this robot in real life. You can use the robot for your own good to improve your skills and strategy. It can be used in casinos as a new game machine.

Awards Won:

Second Award of $2,000