

SUMMARY

Virtual reality is relatively new technology that is developing rapidly. Experts are promising it a great future in many fields. It is believed that one day it will forever change personnel training and first changes can already be seen right now. Military forces of some developed countries are already using VR simulations for teaching and training as it is safer and cheaper to train soldiers in virtual reality. The aim of my thesis work was to research this field of technology and gain experience in creating application for training purposes. Thesis consists of overview of VR market, research on PPSH-41 SMG and practical work that was done after this research.

It was important to get knowledge about VR, special software and firearms before starting the work. First stages of project required knowledge of CAD programs and game development. I had a chance to practice creating CAD models from real drawings and creating scene model using only my ideas. Also, I gained experience in animation and visualization. Then it was necessary to understand working principle of certain firearm and to transfer it to simulation. This will help me to work with projects that are not even connected to firearms. Similar principles of work apply to any project in VR.

This project shows that even people without previous experience in VR can create something useful during relatively short period of time. It indicates that VR technology had already achieved level when it can be used by mass public.

Even though future researches, calculations and tests must be done, goals for this thesis were achieved. Work on this project will continue.