

CONCLUSION (ENGLISH)

To conclude this project, it can be said that it was more complicated than expected. At first, when I had some experience with working on AR on mobile, I thought it would be very similar to the smart glasses. As it appeared during the development process, it is entirely different. Objects that are displayed on mobile AR are not displayed in the free version of Vuforia. In the current situation, it was not possible to show anything except labels, and the labels could not be displayed anywhere except the image target, which had to be prepared in advance and with many unique visual points so that the application would keep recognizing on every update and there would have been no inconsistencies.

The journey of development was exciting and time-consuming, as there is not much information available online about AR yet, as the field is relatively new for the public and whoever is utilizing AR in production, are not willing to share their stuff online for free. Documentation and problems had no answers and more effort was needed to try out different solutions personally until one of them worked.

As of now, it can be said that this application matched the expectations. A user could already take one of the two Vuzix M300 glasses, it is only installed in one, for now, go down in the Protolab and start production in a safe and effective way, without having to ask questions from the supervisor of what and how to do next.

In the scope of free Vuforia license, this was the furthest it was possible to go in terms of AR, as there is no option to display 3D labels anywhere except on pre-defined image target. Also, it is not possible to supplement anything to user's reality except a text label and 3D model. Figuring out a beneficial way for a user to have 3D models supplemented could not be reached, so it was decided not to include that feature at all.

Potential of this application is big along the path of evolution of AR. With current limited capabilities this thesis' application was compiled to be bringing the most value out of what is possible.