

The bachelor's thesis deals with the problem of queen bee detection. When handling bees we need to quickly find the queen bee and mark it for subsequent beekeeping operations. The first part describes the methods of machine learning that can be used to train models. Then available models designed for this problem are compared. After choosing a suitable model, it is described how to maximize the success rate. The practical part describes the improvement of the model and its training on the data that I have prepared for the problem. Finally the model will be used for a mobile application for practical testing.