

KOKKUVÕTE

Käesoleva bakalaureusetöö eesmärgiks oli uurida olemasolevaid basseinikatteid ja luua katus oma disainiga, mis oleks funktsionaalsem, praktilisem ja automaatse mehhanismiga.

Töö käigus kirjeldati juba olemasolevate katete tüüpe, nende eelised ja puudused, lisati ka joonised, et näidata kuidas need välja näevad. Enamik katteid on kõrged ja võtavad palju ruumi ning pole esteetiliselt ilusad. Pärast analüüsi autor tegi oma kate disaini koos mehhanismiga, mille abil see avaneb ja sulgub. Kate liigub rööbastel rulliku süsteemi abil, mis kergendab mootori ja mehhanismi koormust. Kate kasutab lihtsat ja töökindlat mehhanismi. Basseini kate kasutab hammaslatti ja hammasrata mehhanismi. Mehhanism koosneb mootorist, mille külge on kinnitatud hammasratas ja rööbaste külge kinnitatud hammaslatt. Mehhanismi valimiseks tehti vajalikud arvutused, leiti koormused, mootori vajaliku võimsust ja valiti hammasratta suurus. Mehhanismi süsteemi ja basseinikate konstruktsiooni projekteeriti 3D CAD-tarkvaras Solidworks. Lõputöö käigus ette antud ülesanne sai täidetud.

ABSTRACT

This bachelor's thesis focused to investigate the existing pool covers and create a pool cover with own design that would be more functional, practical and with an automatic mechanism.

During the work, the types of existing pool covers advantages and disadvantages were described, pictures were also added to show how they look. Most covers are tall and take up a lot of space and are not aesthetically beautiful. After analysis, the author created his pool cover design with a mechanism by which it opens and closes. The cover moves on rails using a roller system, which eases the load on the motor and mechanism. Pool cover uses a simple and reliable mechanism. The pool cover is used a rack and pinion mechanism. The mechanism consists of a motor to which a pinion is attached and a rack is attached to the rails. To select the mechanism, the necessary calculations were made, loads were found, the required motor power was calculated, and the gear size was selected. The mechanism system and pool cover design were designed in 3D CAD software Solidworks. The task given during the thesis was completed.