UNIVERSITAT POLITÈCNICA DE CATALUNYA
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Treball final de Grau

Disseny i prototipat d'un sistema mecànic de posicionament i orientació del rem durant la palada i la recuperació

Abstract

Grau en Enginyeria Mecànica

Curs 15/16

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ABSTRACT

The following project details the design of a mechanical system that seeks to optimize and facilitate the stroke of a rowing boat. The system tries that each cycle made by the user be as efficient as possible.

From the input movement generated by the user, the system determines the orientation of the oar paddle; whether this is inside (during the aquatic drive phase) or out of the water (during the aerial recovery phase).

Thus, the system has a dual role, within the leisure and recreation area, it seeks to provide to the user with little experience, enough facilities to develop more easily and fluently, while the sporting and racing side, the system intended to be the supplement that provides high mechanical efficiency to be as fast as possible.

This system, works trying that during the aquatic traction phase, the oar blade be always perpendicular to the water flow and during the aerial recovery phase, the paddle remain parallel.