

# **DESIGN, DEVELOPMENT, AND CONSTRUCTION OF A WORKING MODEL OF THE MAESLANTKERING**

Prepared by: Billy Chen Keng Heng, Loo Lick Huang, Ng Ji Tat, Ong Sen Leong

## **ABSTRACT**

---

In this report, an introduction to what is Maeslantkering will be included. Next, the calculation according to the actual barrier and the prototype will be done. The calculations included the torque needed to drive the barrier, and the power consumption of the barrier. Besides that, research on landscape and the purpose of building the barrier are included. In addition, the AUTOCAD drawing of the truss will be shown.

For the prototype part, the process of building it will be illustrated with descriptions and photos in this report. For the construction part, materials chosen and welding process will be explained. Furthermore, the electric circuit designed for the prototype also will be included. The operations of the prototype such as how to control the flow in and flow out of water, and how to detect the water level will be stated.

Last but not least, the problems encountered when building the prototype and the improvements can be done will be stated.