

## **ABSTRACT**

*The activity to clean up trash in the Citarum River has started since February 2018, this activity is known as the "Citarum Harum" program. This activity was carried out by TNI from Kodam III Siliwangi who went down directly to the river using a rigid boat to clean up garbage. The Citarum Harum activity is carried out at several points along the Citarum river basin, including in the area of Dayeukolot sub-district, Bandung District. Citarum Harum activities are carried out using a polyethylene rigid boat with a weight of 100 kg boat which is commonly used as a rescue boat for flood victims. As a result of the use of these materials as a core material that is sturdy enough to withstand the impact of water when using the engine as a driving force, the rigid boat becomes a big burden for the officers when the boat is converted and the drive engine is released. Boats that are supposed to be driven by a machine instead use manual oars, rigid boat use activities by relying on rowing will result in musculoskeletal disorder or the impact of muscle disturbance due to excessive muscle workload, this can happen to Citarum Harum officers because these activities are routinely carried out. On this occasion the author tried to design a rigid boat to get a more suitable and lighter material so that the mobilization of workers would be easier and not cause dangerous health impacts.*

**Key Words :** *Rigid Boat, Materials.*