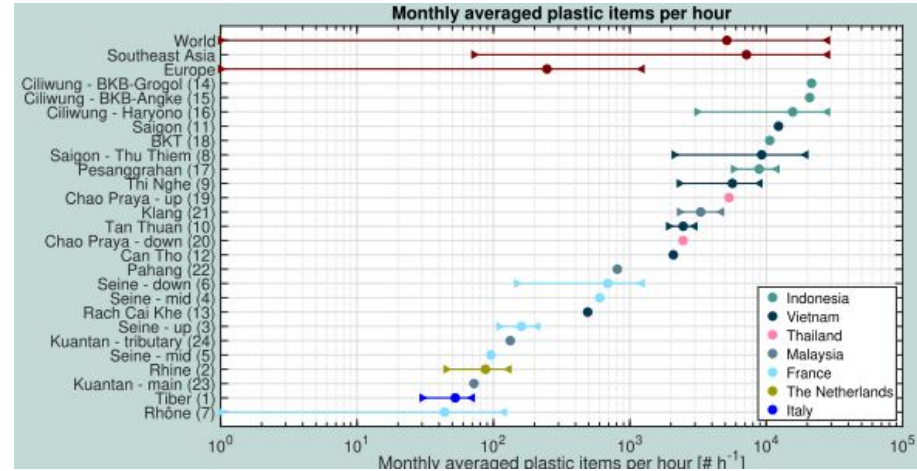


# Water Surface Trash Collector

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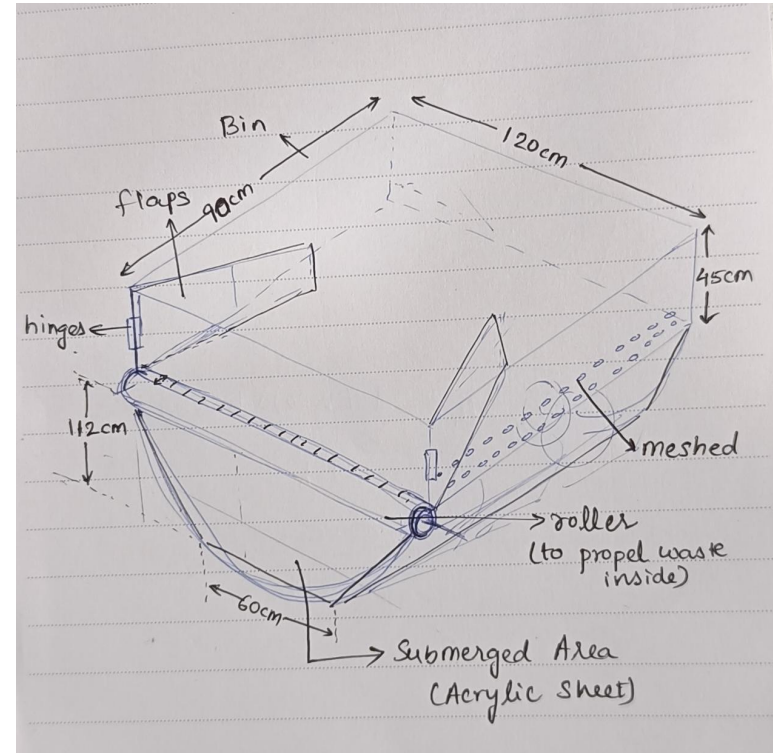
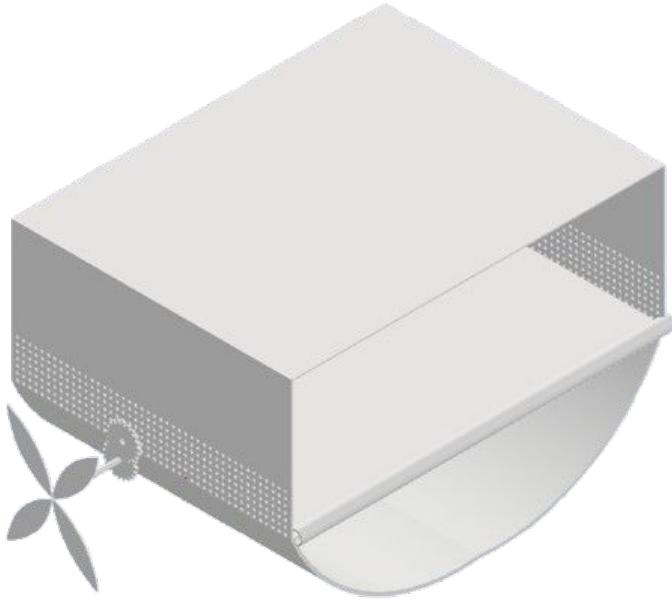
# Problem



Source:

<https://iopscience.iop.org/article/10.1088/1748-9326/ab5468/pdf>

# Design



# Details

- Material - Acrylic Sheet (density =  $1180 \text{ kg/m}^3$ )
- Controller - Raspberry pi
- Assumed - Volume of Water displaced = 243 Litres
- We kept the height of the immersed area as a variable. On equating the Buoyant force with the Weight of the immersed body, we concluded the height to be 1.12 meters.
- Motors - 12V BLDC Motors
- Propellers (Diameter = 20 cm) - 500 rpm
- Gear - To elevate the motor altitude for waterproofing

# Electronic Circuitry

