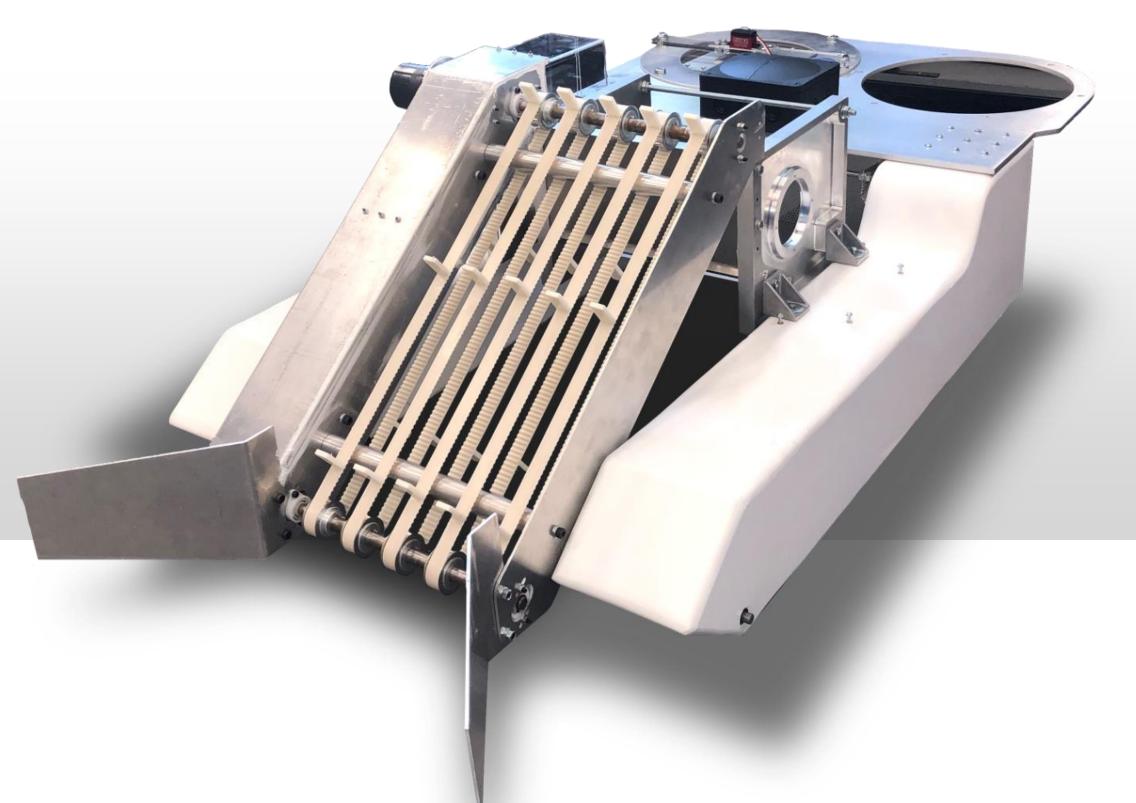
AMPHIBIOUS ROBOT FOR CLEANING WATERWAYS

Storage & Discharge System

Group 09C: T. Allen, H.L. Khoo, M. Mecattaf, F. Meroni, M. Obrowski

OVERVIEW

- Stores floating litter from inland waterways
- Maximise quantity of litter collected for single daily discharge
- Discharges with no human interaction
- Future improvements will process litter to decrease its volume



Imperial College London

Supervisor: Prof. M. Charalambides Co-Supervisor: Dr. M. Mulakkal Project Director: Dr. R. Silversides

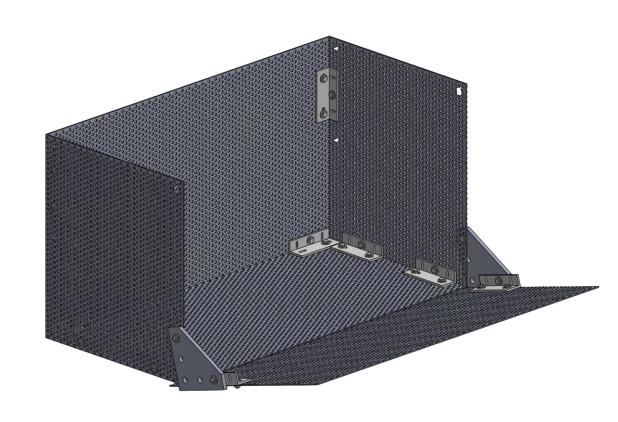


STORAGE

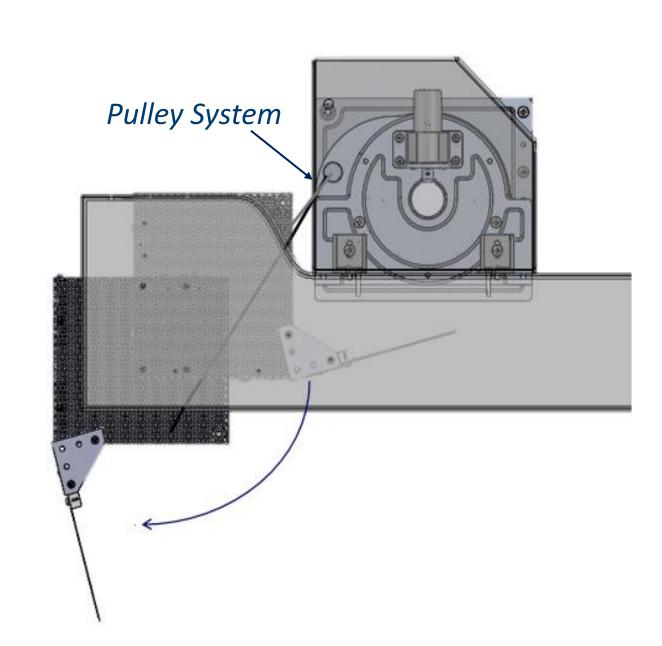
Peg Flow of Litter

- Peg guides waste from Collection
- Rigid basket collects litter

- Aluminium
- 13 L capacity
- Perforations for drainage and drag
- Angulated front plate barrier

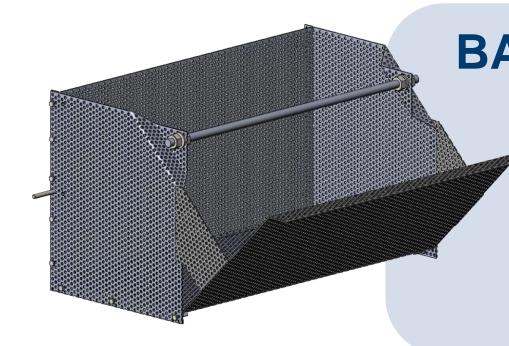


DISPOSAL



- Gravity-fed discharge
- Pulley system
- 10s disposal cycle

FUTURE ITERATIONS



BASKET REDESIGN

- Tabs added for structural stability
- Flush basket interior

CRUSHER

- Toothed roller punctures and crushes litter
- 80% decrease in litter volume
- Designed and quoted for

