

TEAM 03

ROBOTS 2 THE RESCUE

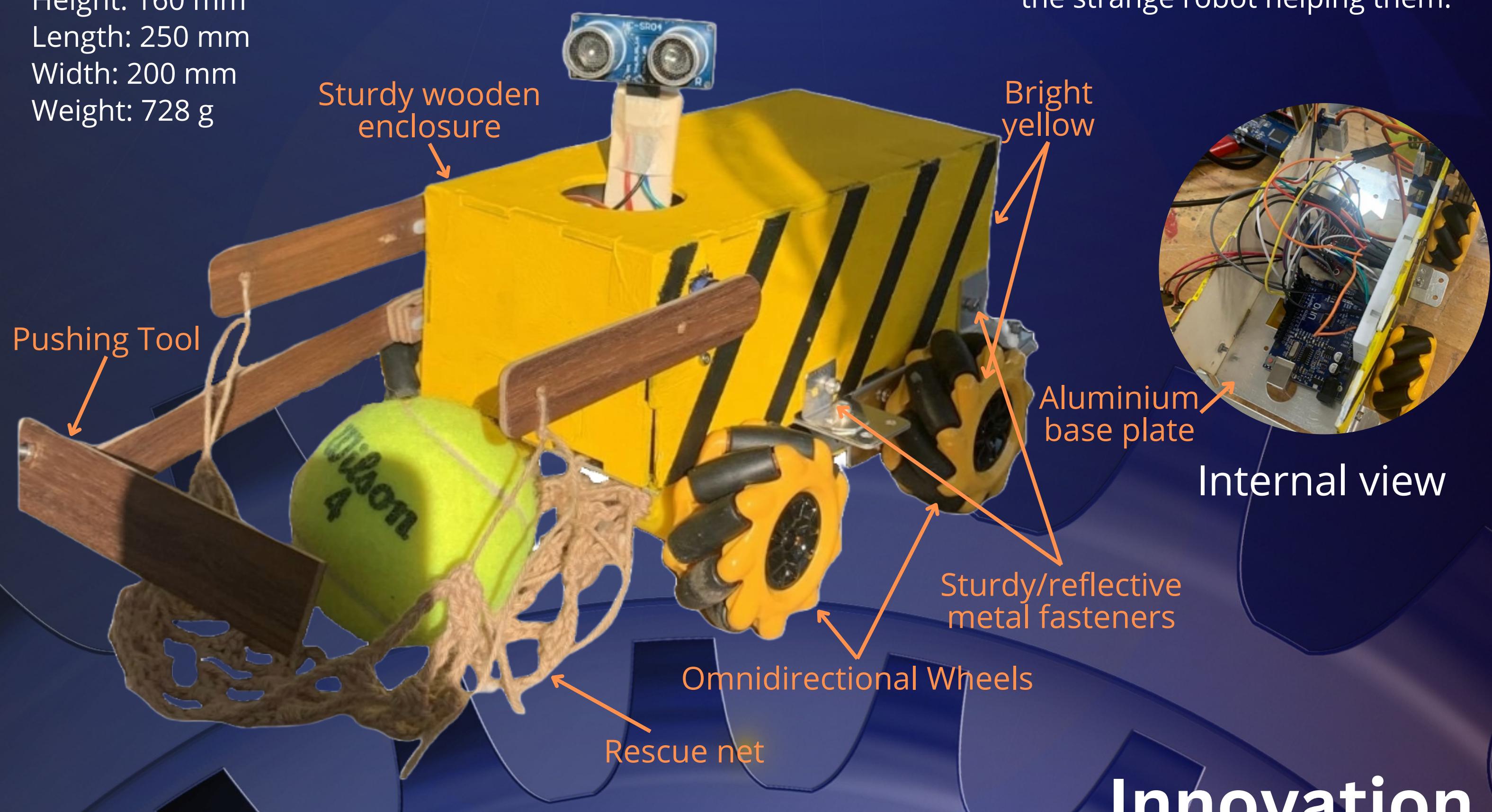
Engineering Quality

This prototype is articulately engineered, created with multiple moving joints for extra precision in the victim retrieval process.

A singular pushing tool has been crafted with measurements specific to the angle in which it will rotate, to push the victim into the net.

Two rotating arms, have been implemented to provide steady movement when lifting the victim within the net.

Height: 160 mm
Length: 250 mm
Width: 200 mm
Weight: 728 g



Robust Design

Our prototype is built around a sturdy aluminium base plate and all elements are secured to the plate with firm metal fasteners.

The electronics are housed in a durable wooden enclosure, designed to protect from debris.

The wheels are entirely made from hard plastic, so they will suffer minimal damage while navigating over debris.

Aesthetic Appeal

Our final prototype, is designed to be visible. The prototype is predominately bright yellow, creating contrast with the rescue environment, making it more visible to the victim.

The aluminium base plate and metal fasteners will act as reflectors in any dark rescue scenarios, catching any light and making the prototype more noticeable for the victim.

The prototype is designed to look cute and friendly, with the aim to make the victim, more receptive to the strange robot helping them.



Internal view

Innovation

Unlike others, our prototype's method of capturing utilises a soft net to gently lift up the victim, and keep them safe from any obstacles in the path that may hurt them.

Alongside the net, an active pushing tool is included to smoothly move the victim into the centre of the net, for successful retrieval

Additionally, the prototype features omnidirectional wheels to make navigating through tight spaces much easier.