



POPPY

Design of a new head



Summary

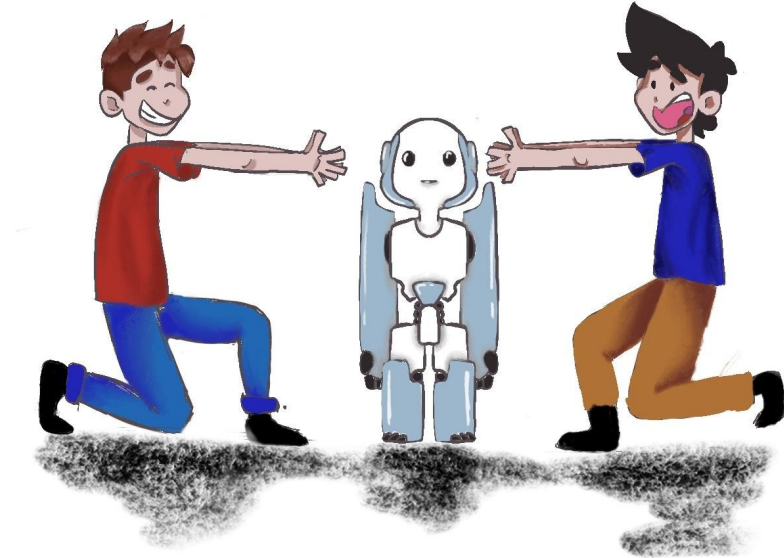
Introduction

Specifications

Choice of solutions

Design

Final render



Eléa Charpentier

Specifications

Retention of components in the head



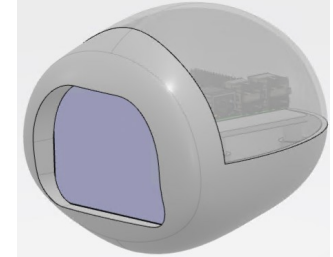
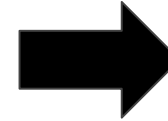
RPi 4



Display 4,3"



Miniature camera

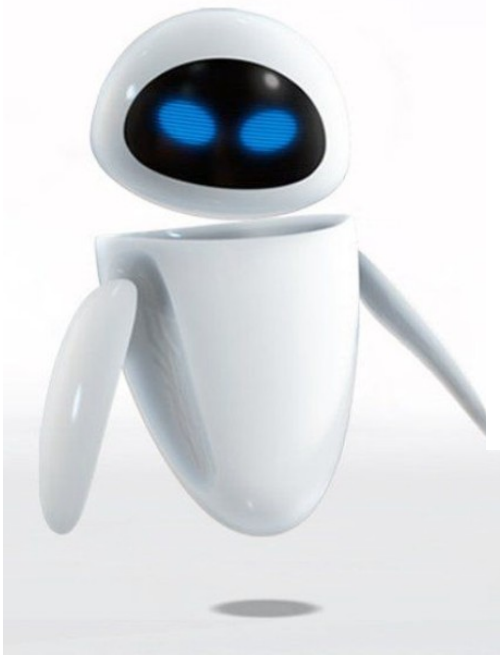


Easy access to electronic components

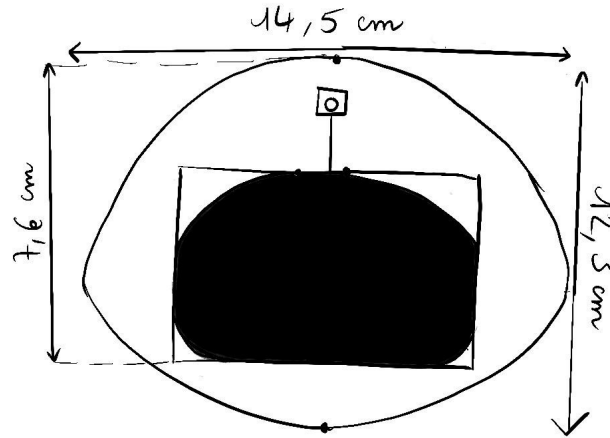


Choice of solutions

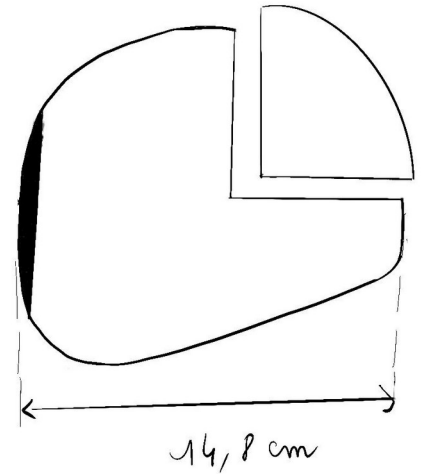
Inspiration:



From the Pixar movie « WALL-E »



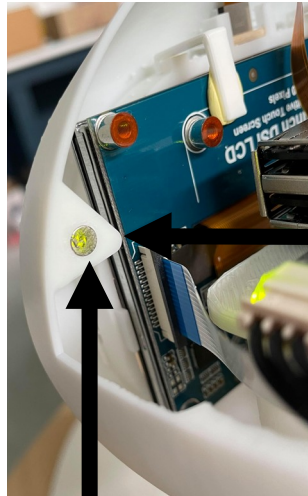
Front view



Side view

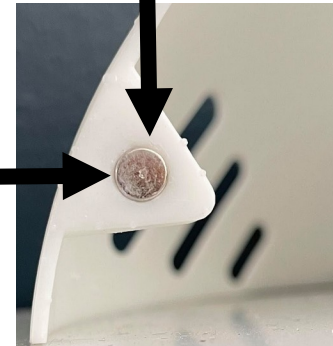
Head parts fixation with ma

The two parts of the head are fixed with small magnets



north face

Tight fit

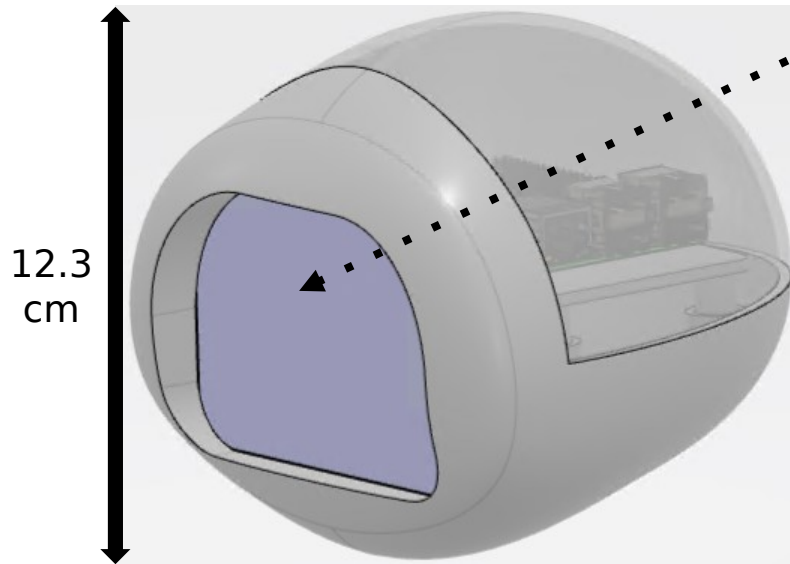


Tight fit

South face

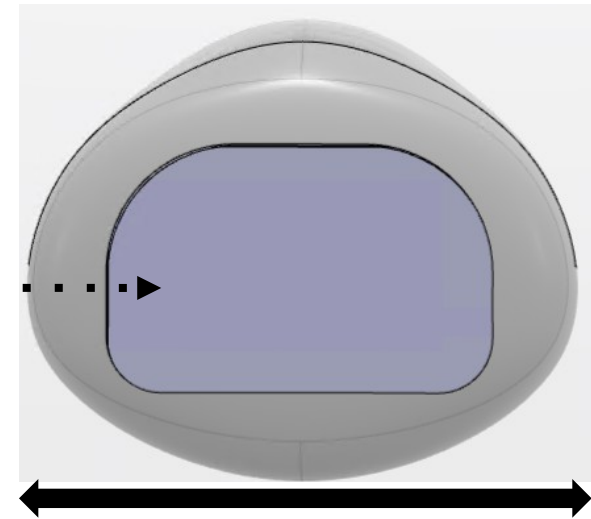


Head shape



Isometric view

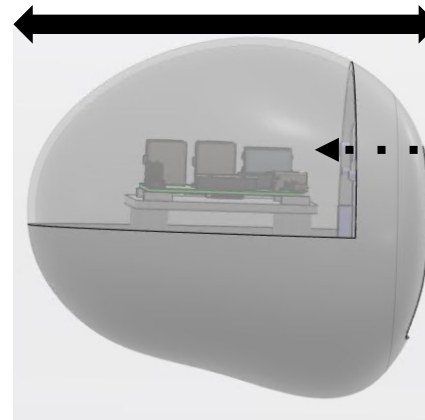
Front view



LCD display

14.5 cm

14.8 cm

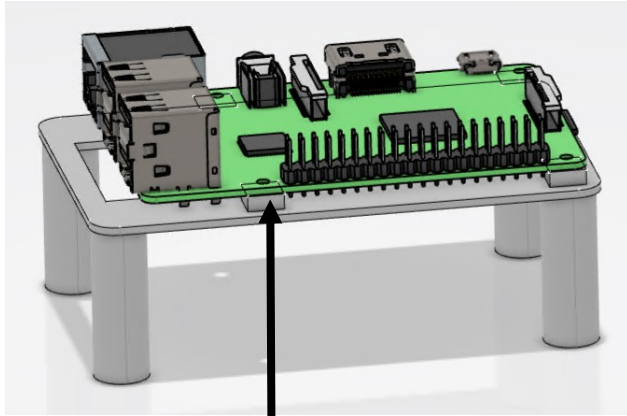


Rpi 4 module

Side view

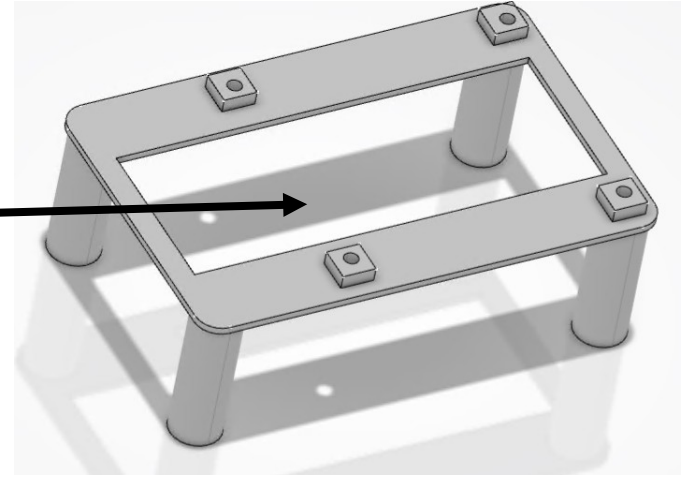
Rpi 4 integration

Raspberry Pi 4 module:

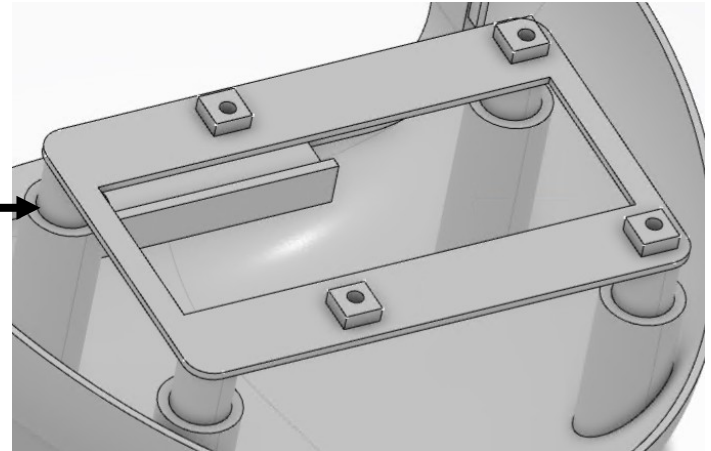


Extra thickness

connection space

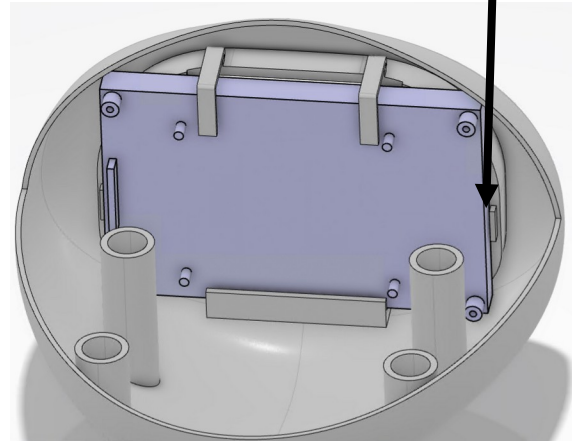
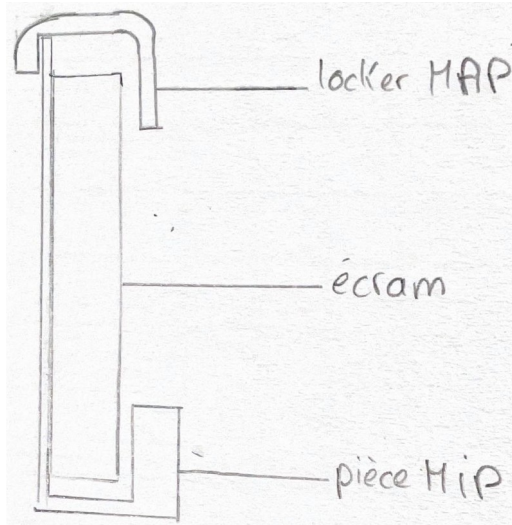


0.5 mm clearance



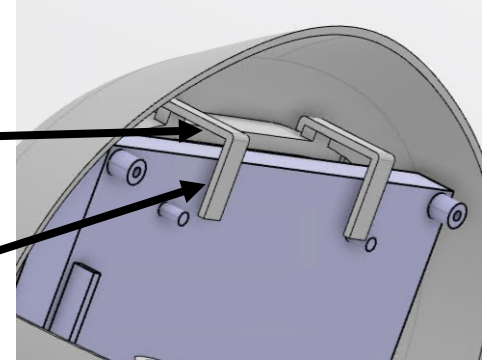
LCD display integration

LCD display:

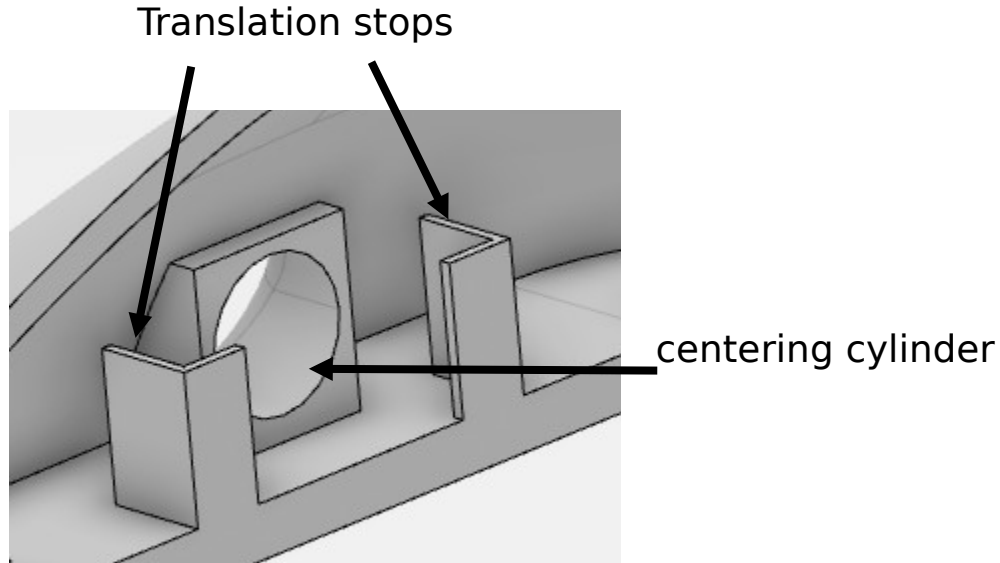


Fixation locker

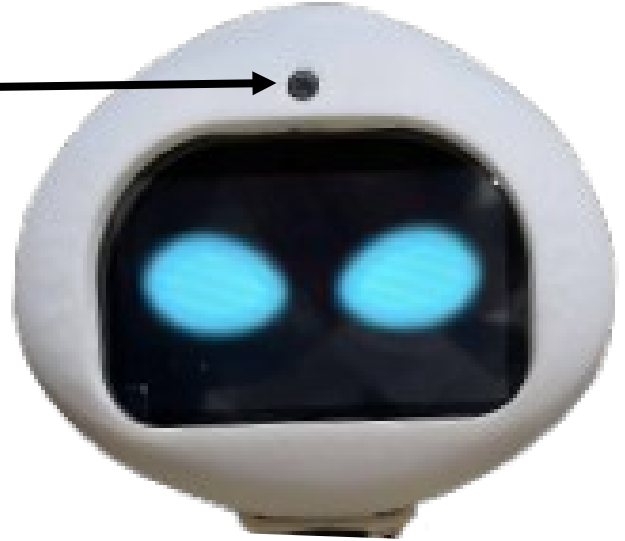
0.5 mm clearance



Miniature camera integration

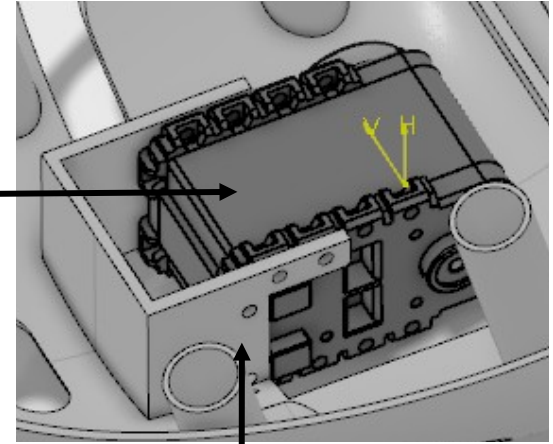


Miniature camera



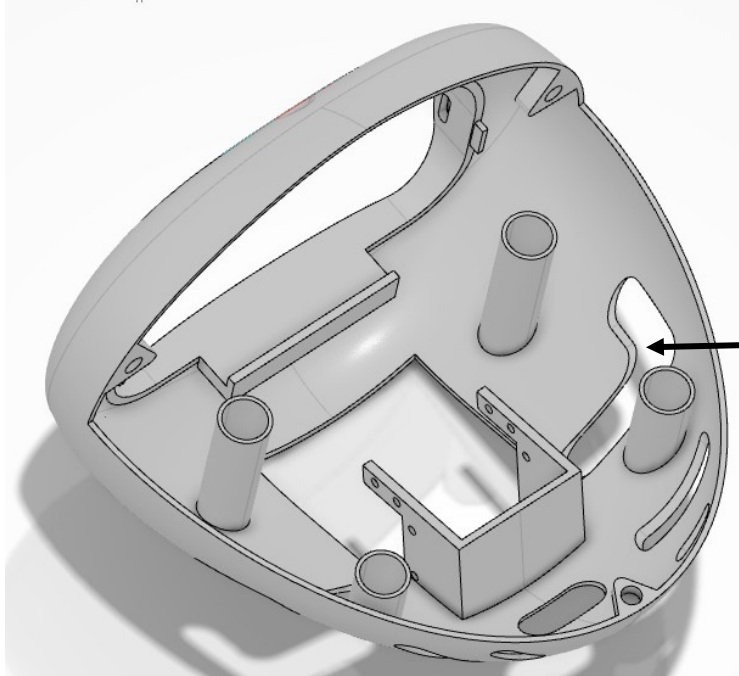
Motor integration

Dynamixel servomotor



Servomotor support

Hole (servomotor assembling)



Final render

