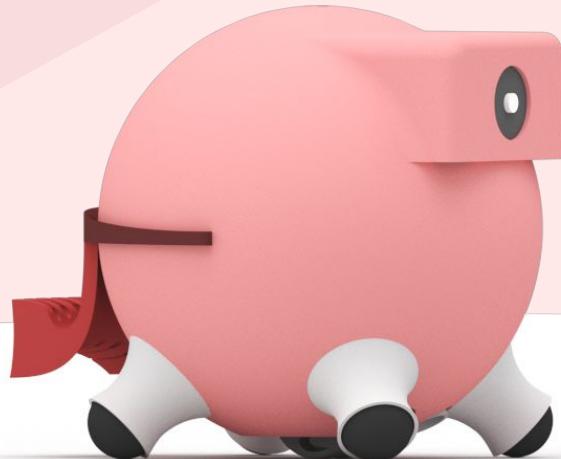


# CONDUIT SERVICE ROBOT CONSTRUCTION ASSISTANT MACHINE

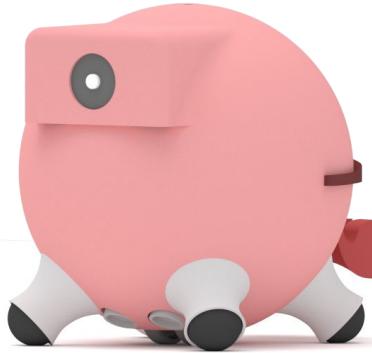
20. July 2021

Tzu Ching Wen



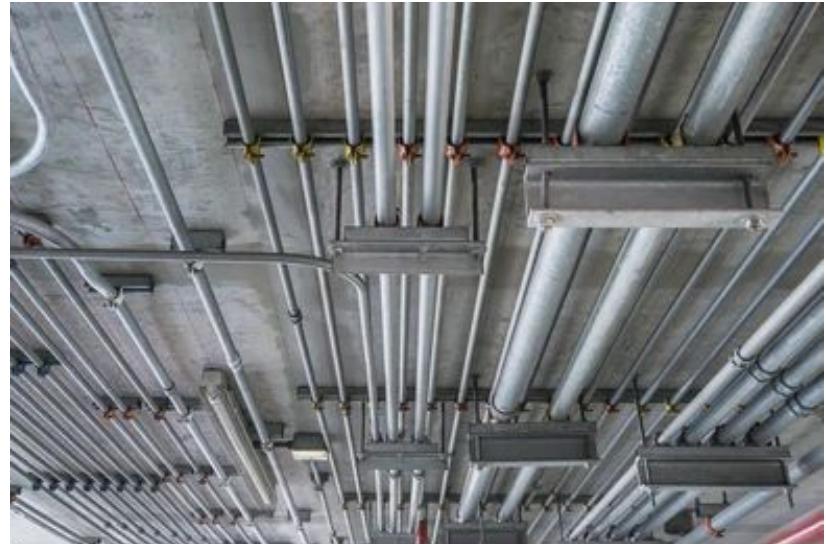
CONCEPT

## SERVICE ROBOT

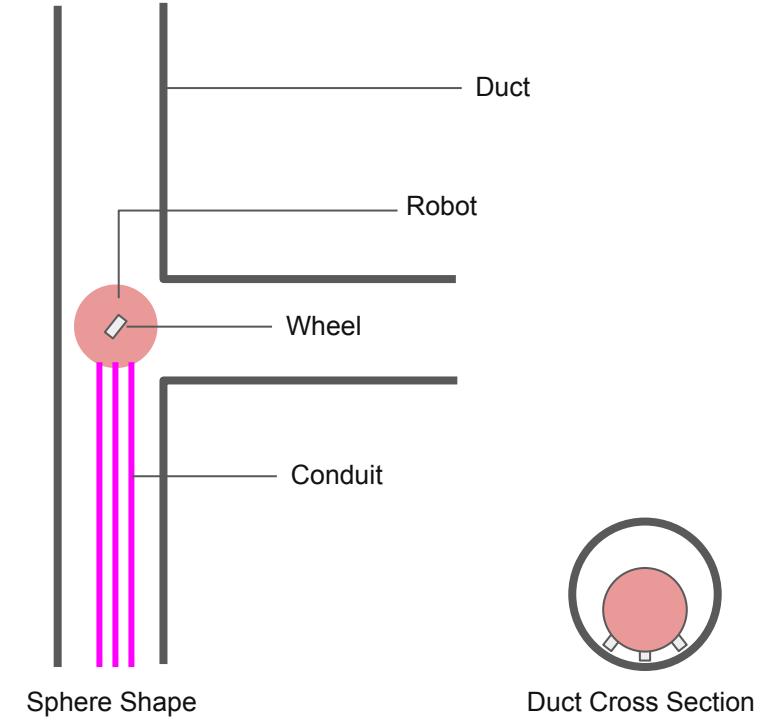
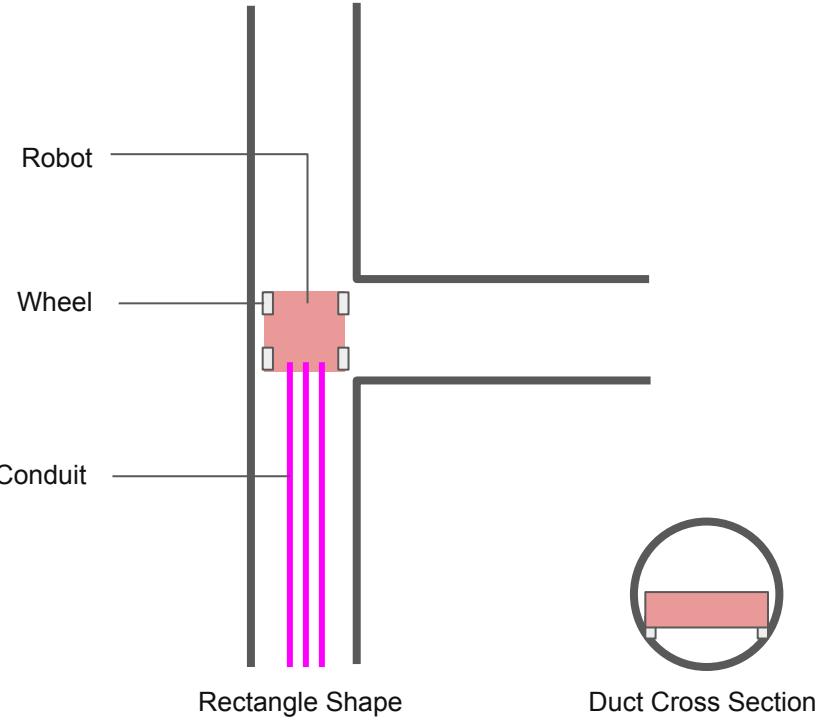


CONCEPT

DUCT TYPE

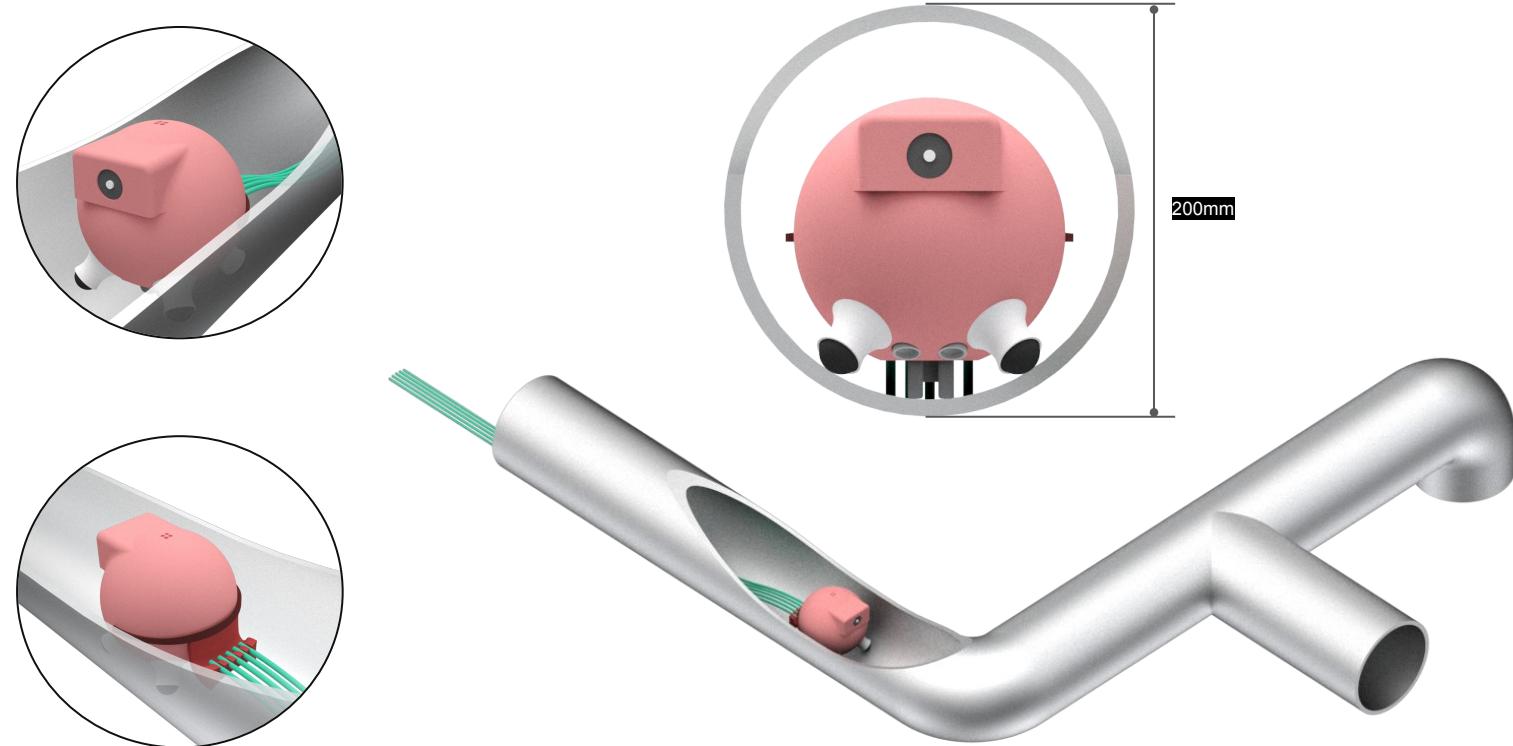


## TOP VIEW OF ROBOT IN DUCT

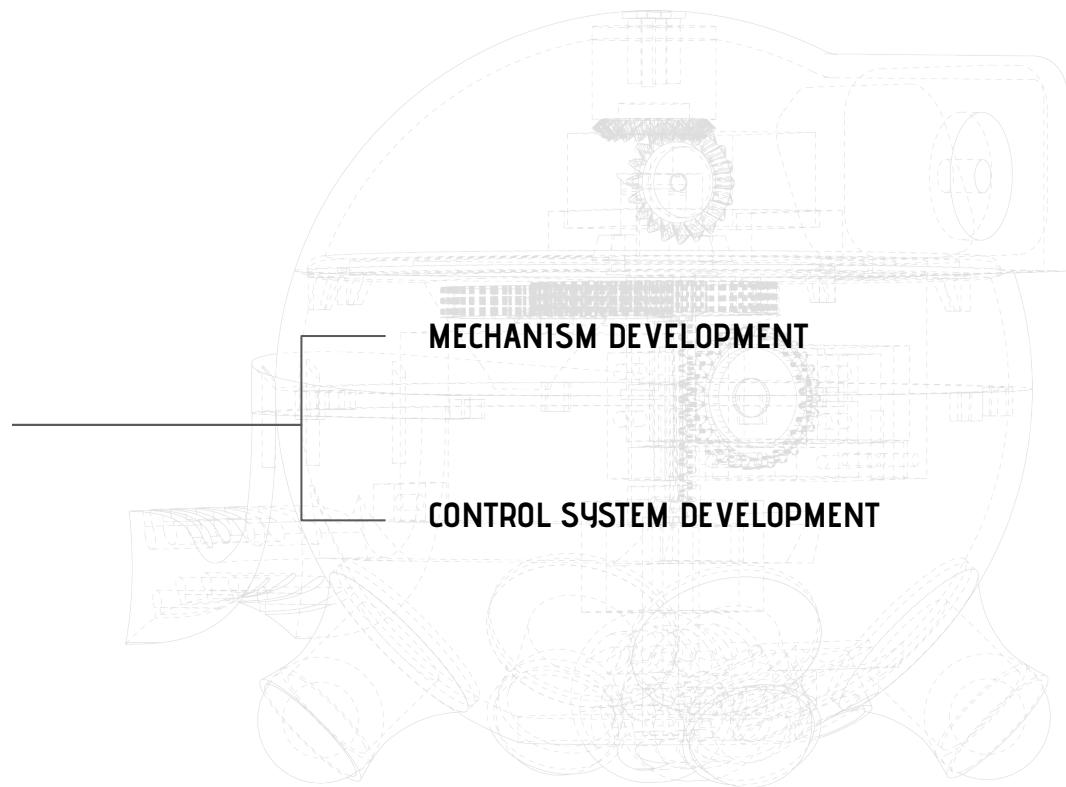


CONCEPT

## SERVICE ROBOT

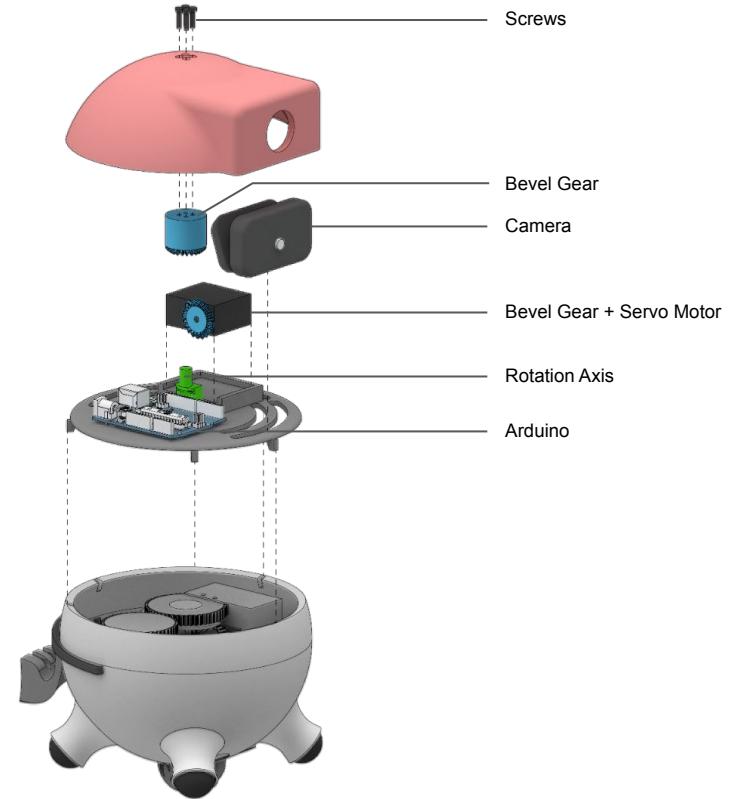
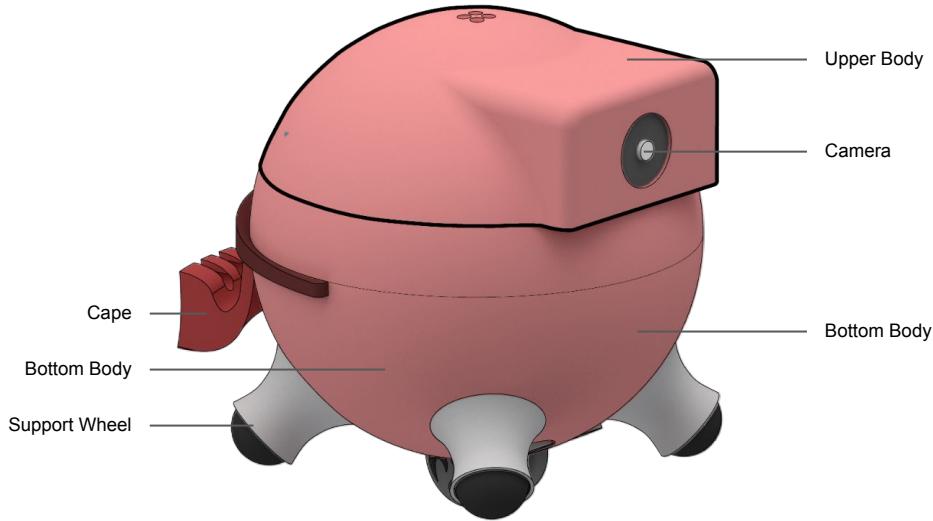


# TECHNICAL DEVELOPMENT

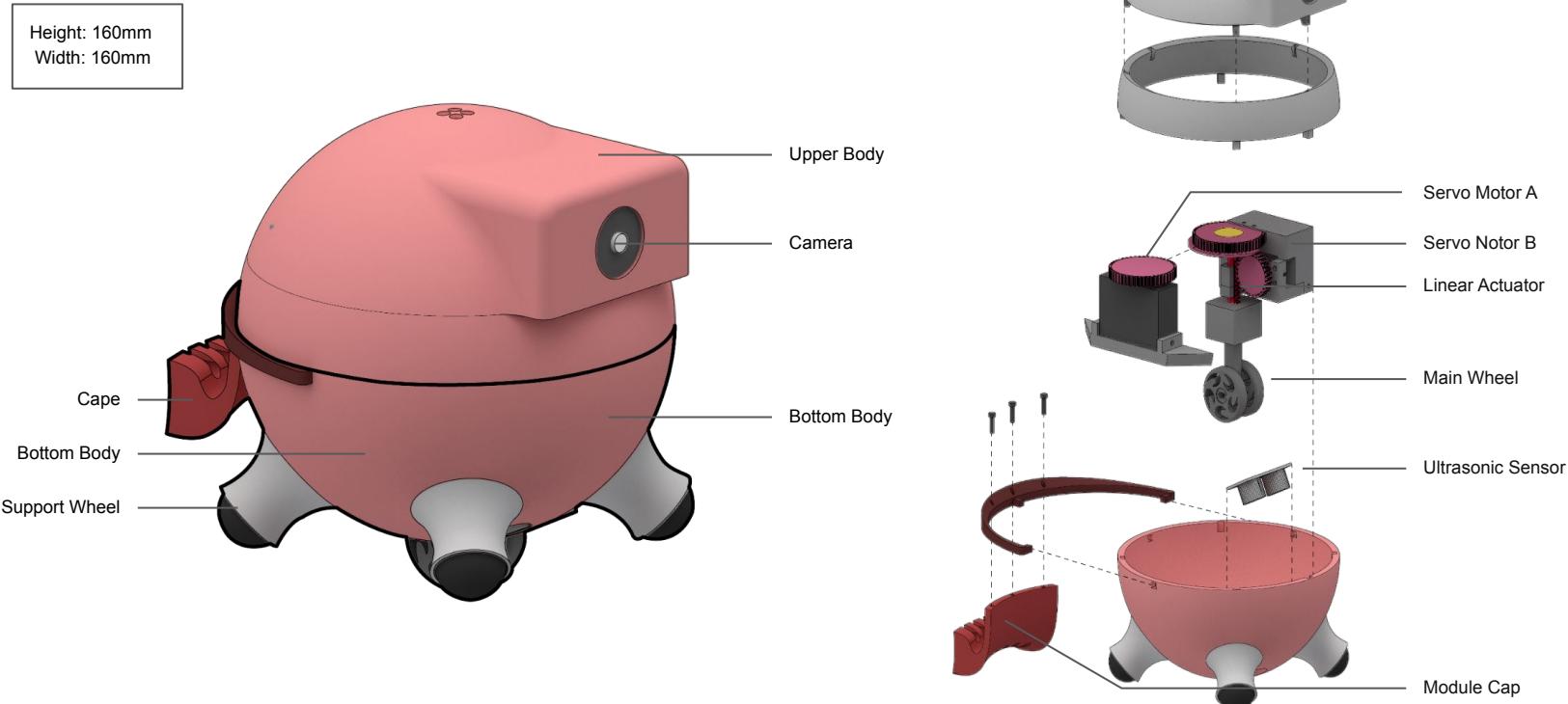


## UPPER BODY MECHANISM

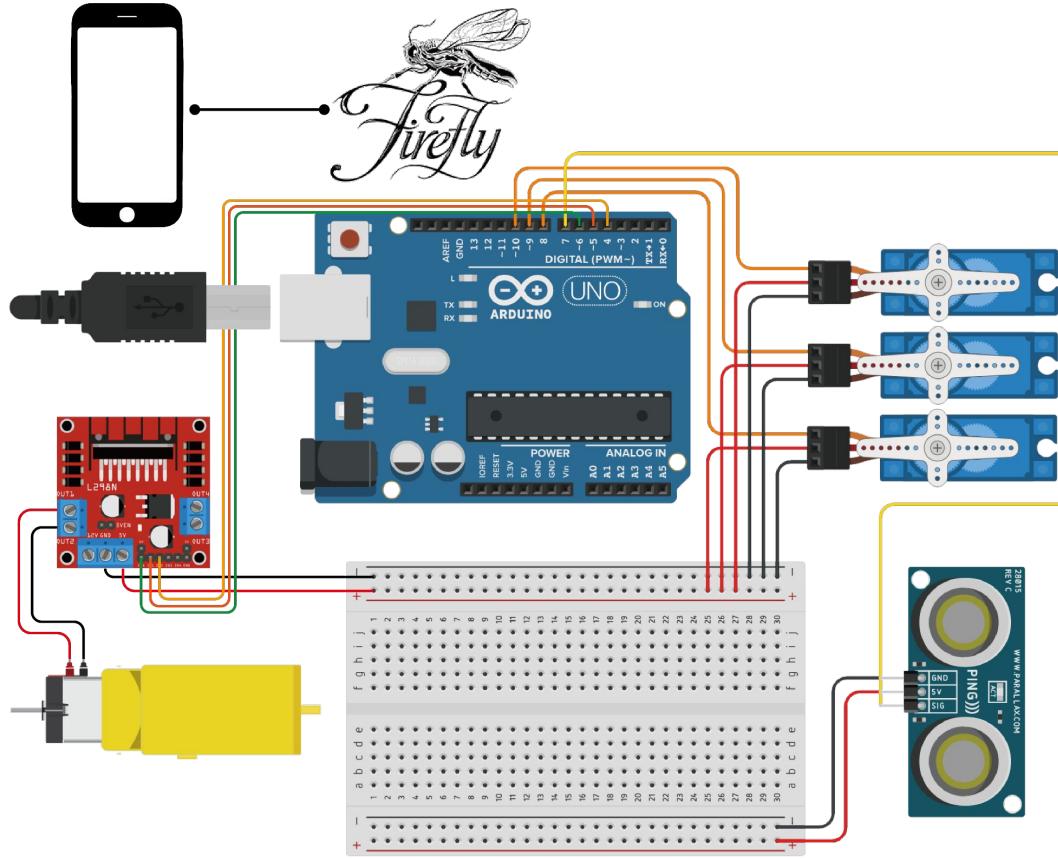
Height: 160mm  
Width: 160mm



## BOTTOM BODY MECHANISM

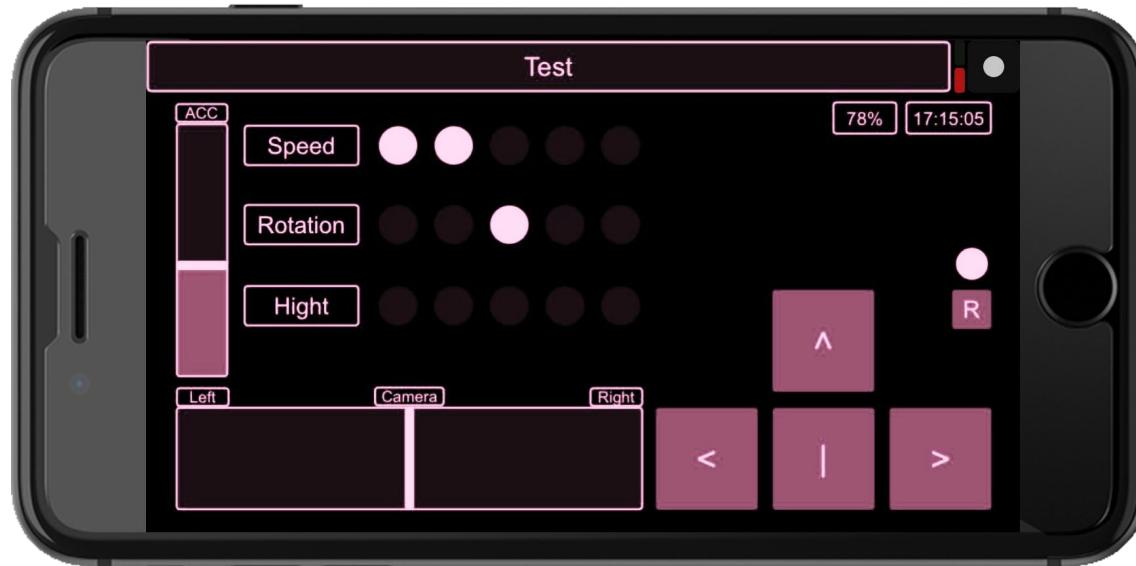


## CIRCUIT DETAIL

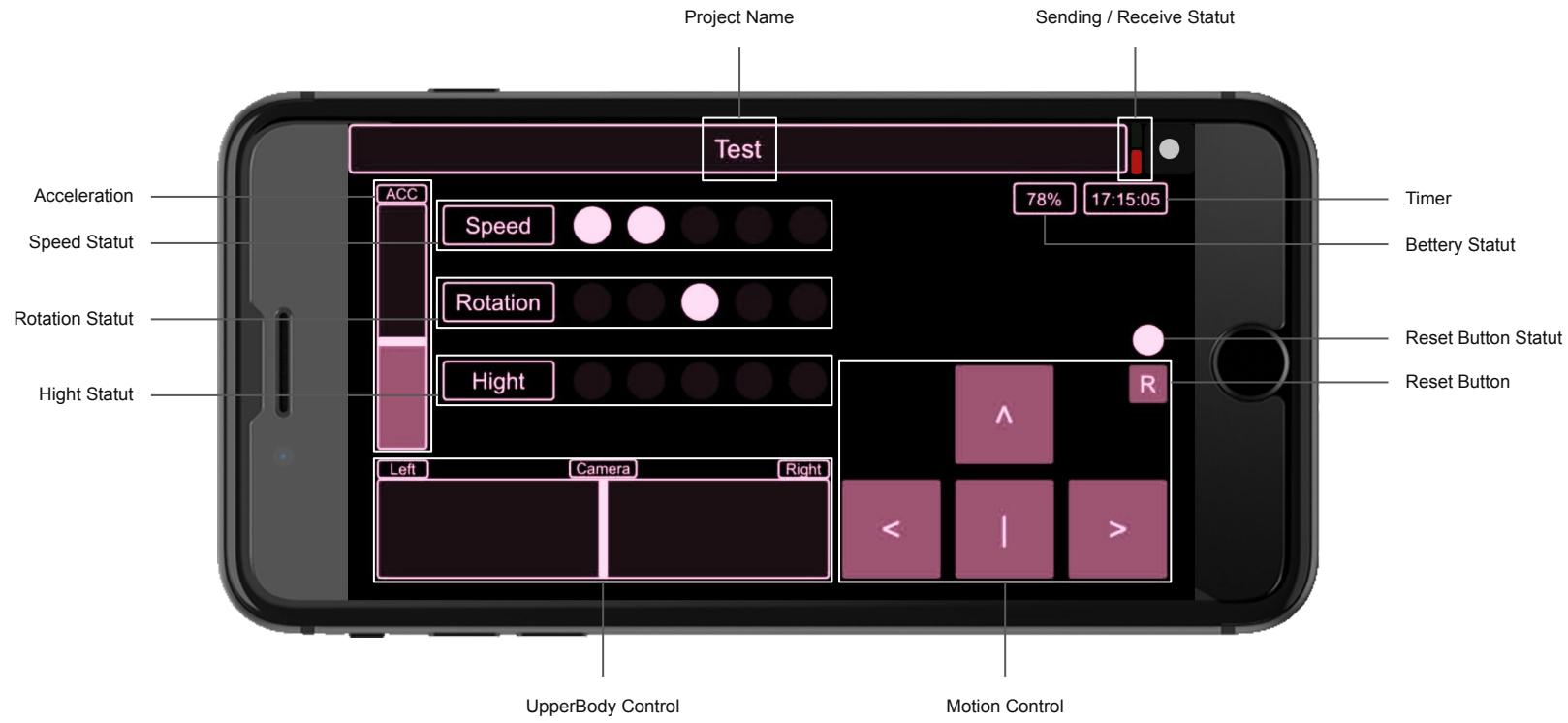


- Arduino x1
- Ultrasonic Sensor x1
- Servomotor x3
- DC Motor x1
- DC Motor Driver x1
- Mobile Phone x1

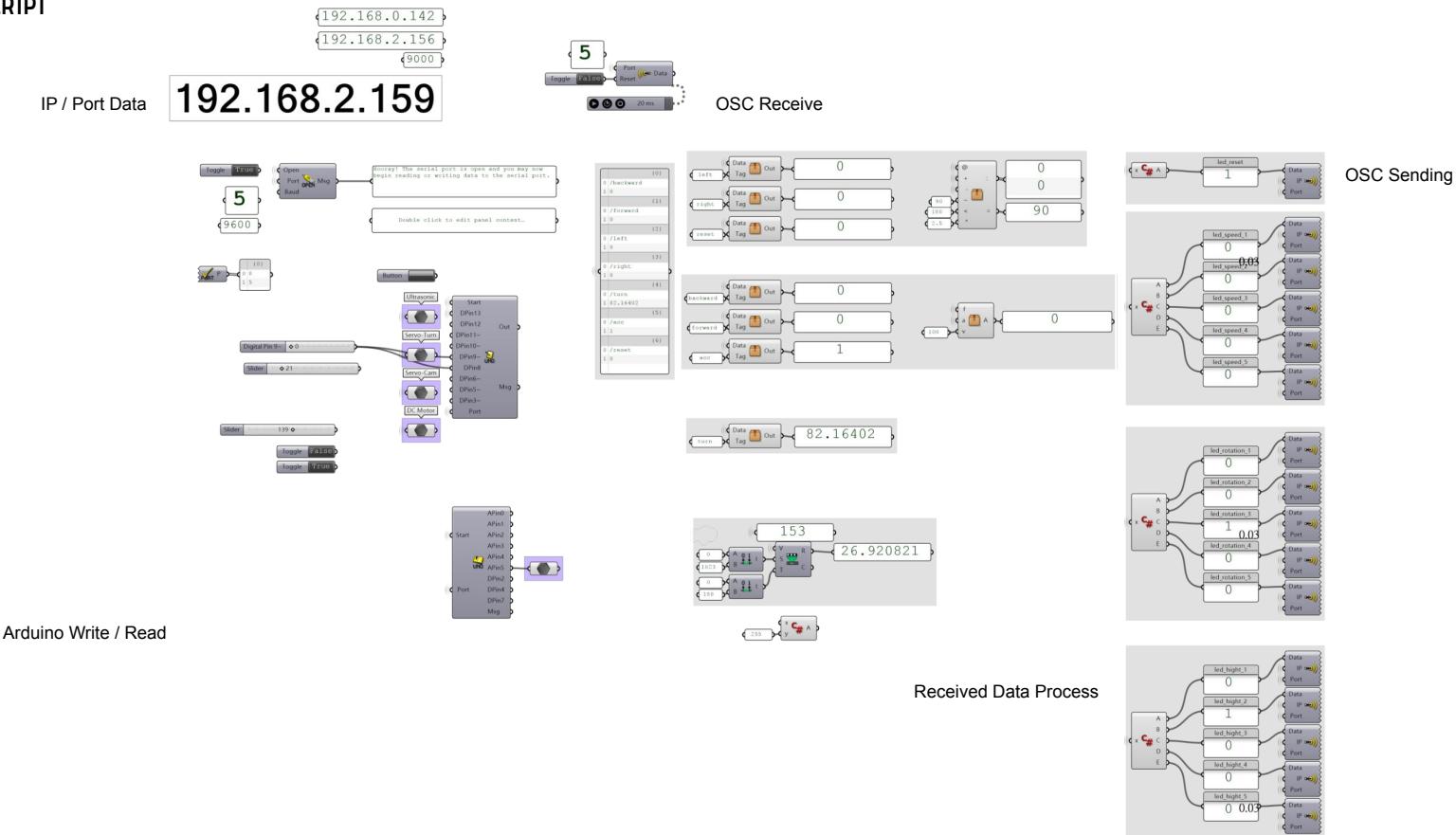
## CONTROL SYSTEM



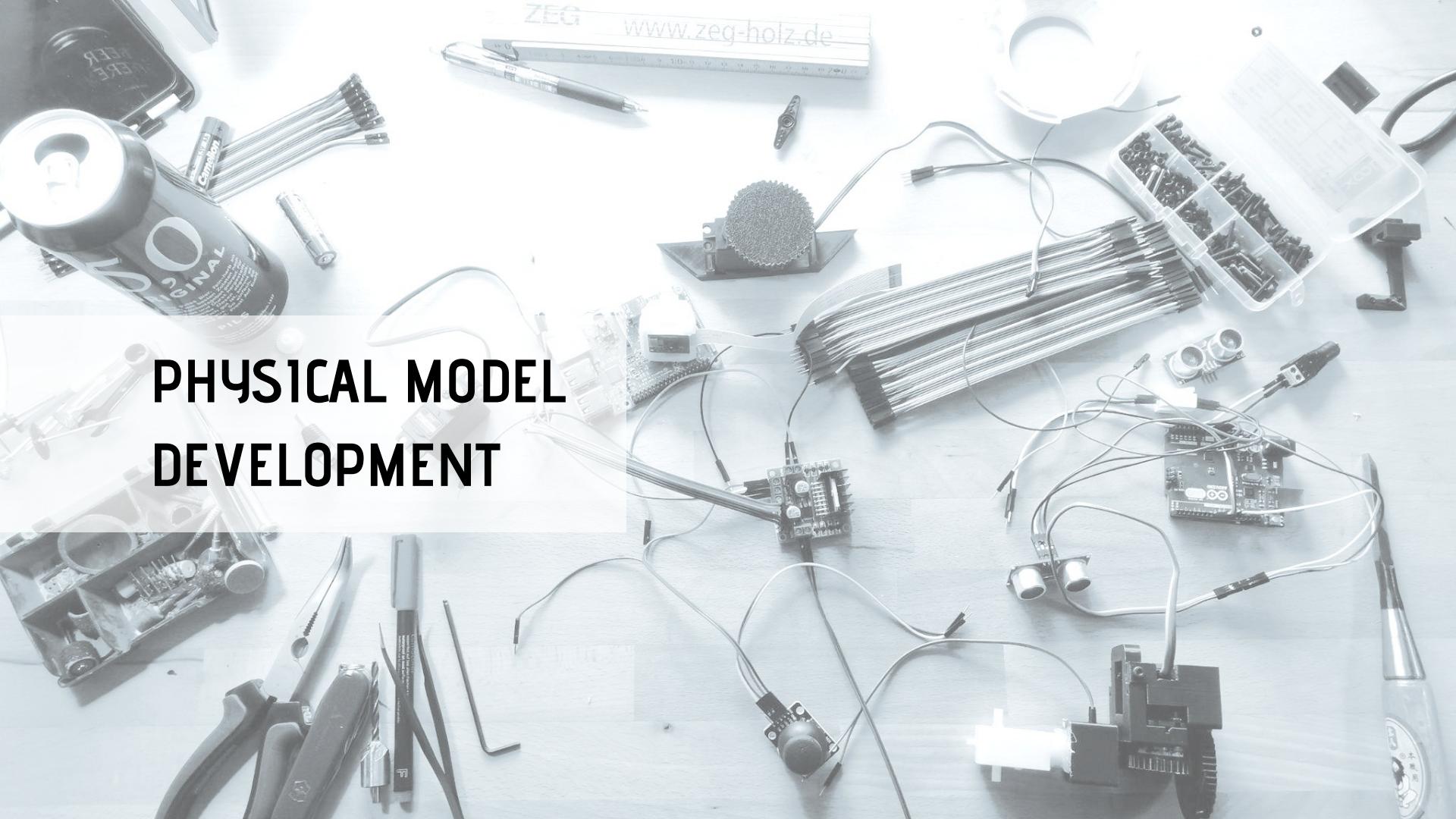
## CONTROL SYSTEM



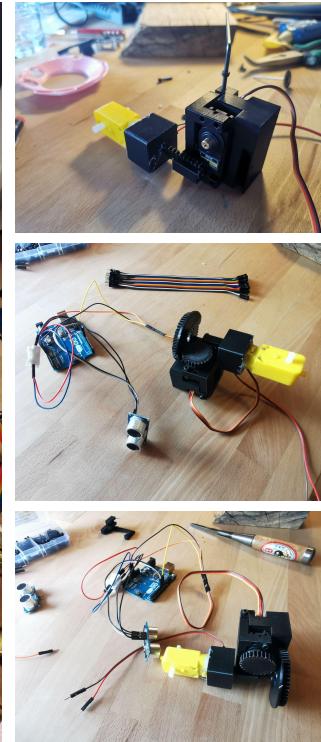
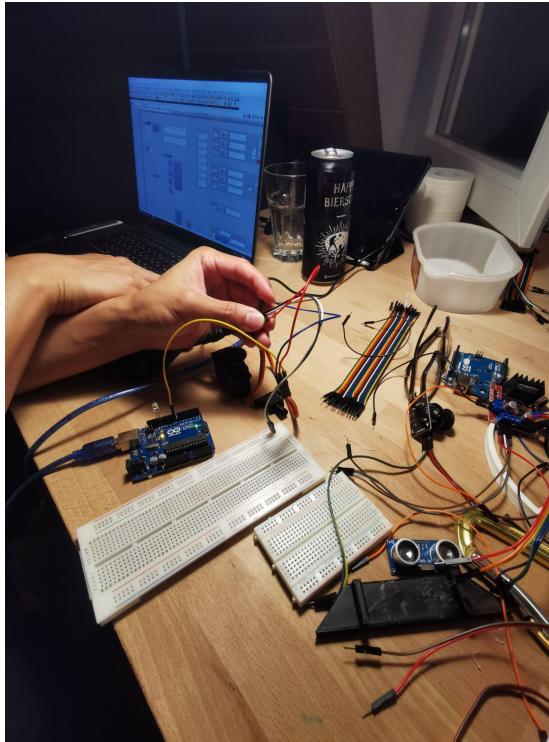
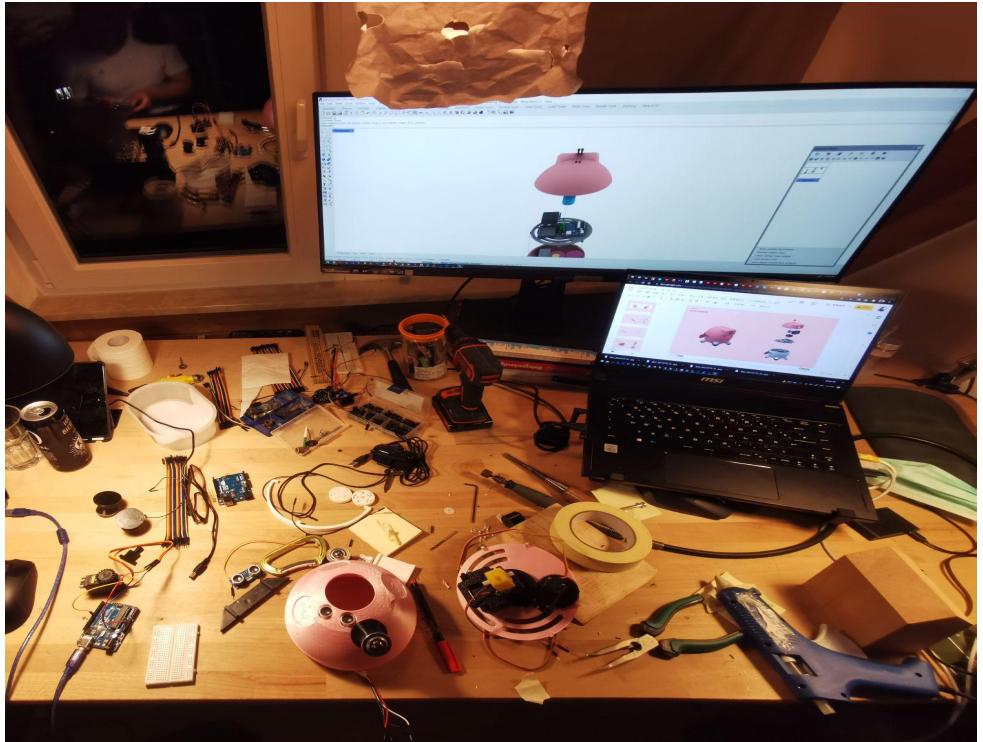
## FIREFLY SCRIPT



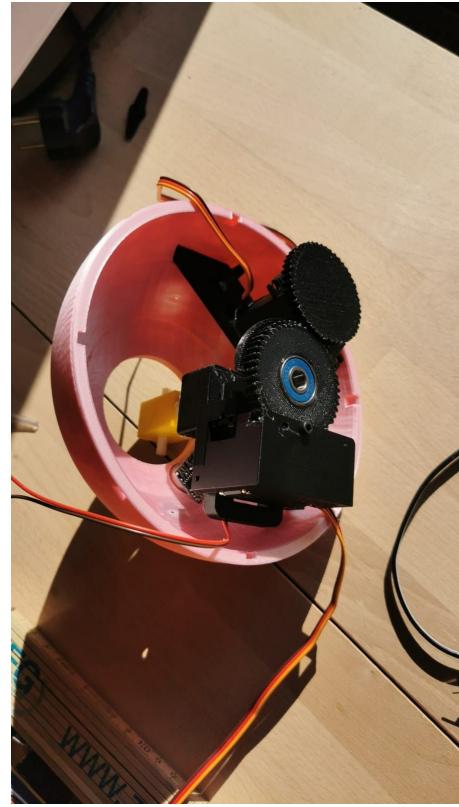
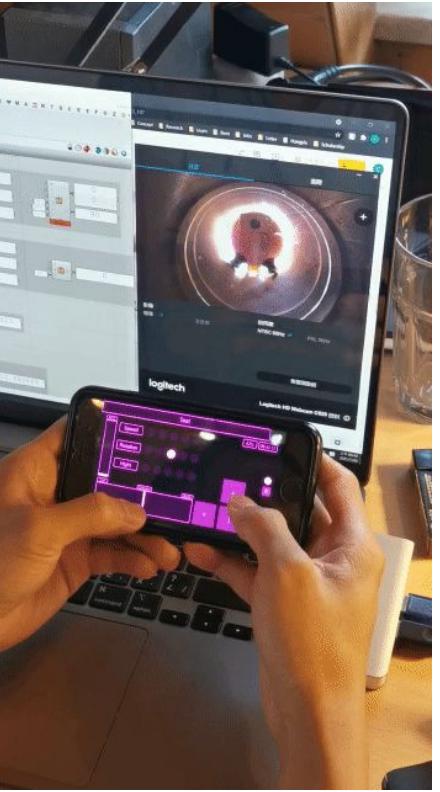
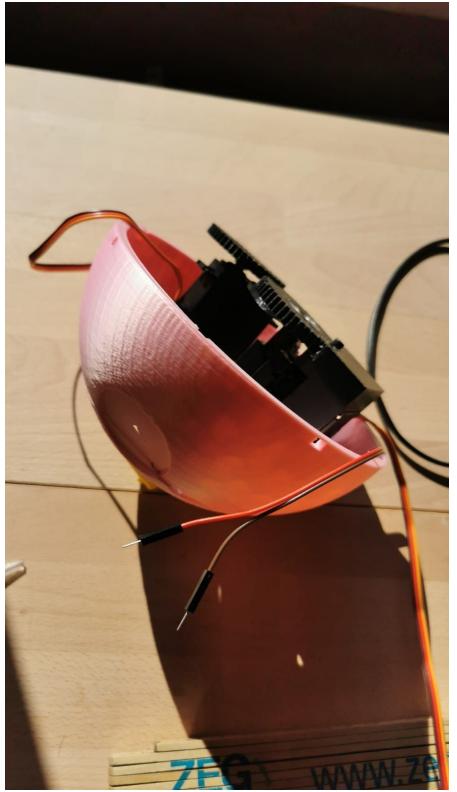
# PHYSICAL MODEL DEVELOPMENT



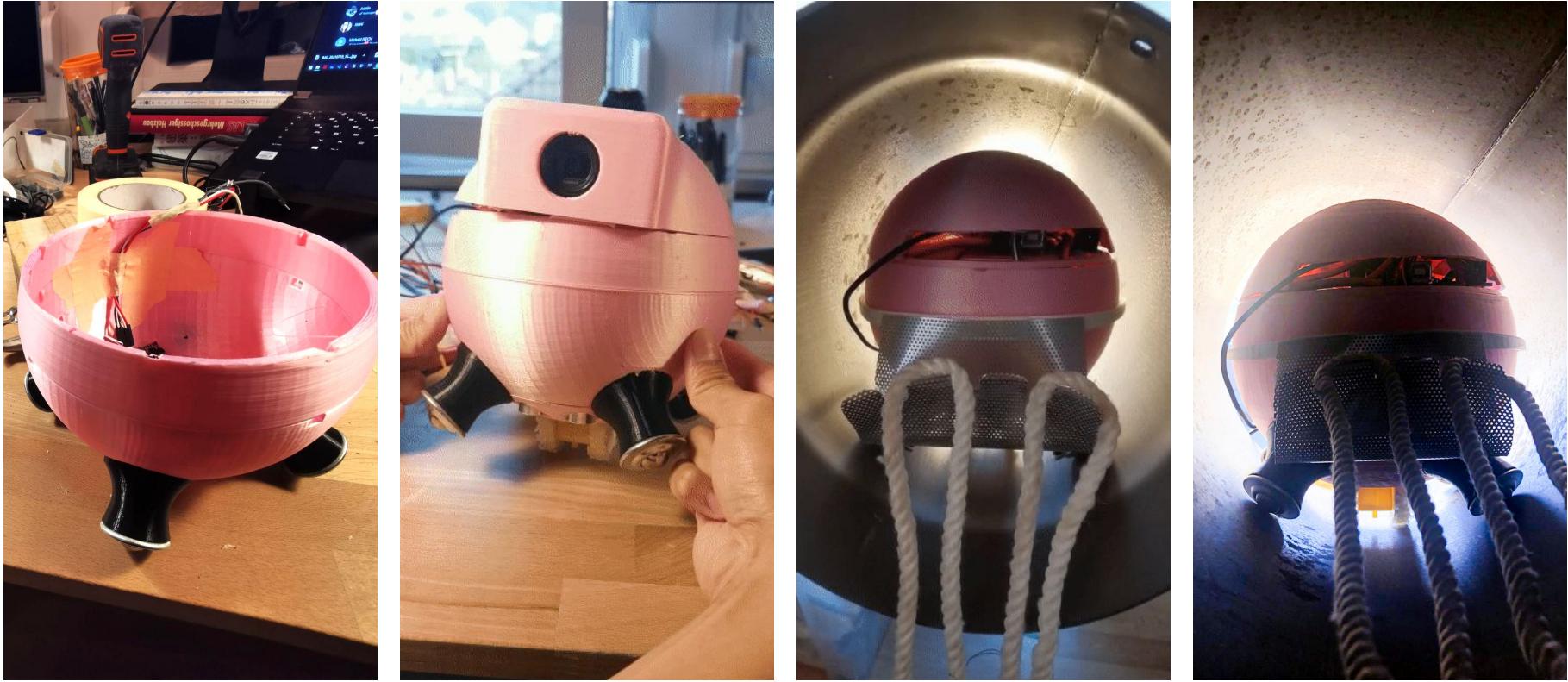
## DEVELOPMENT PROCESS



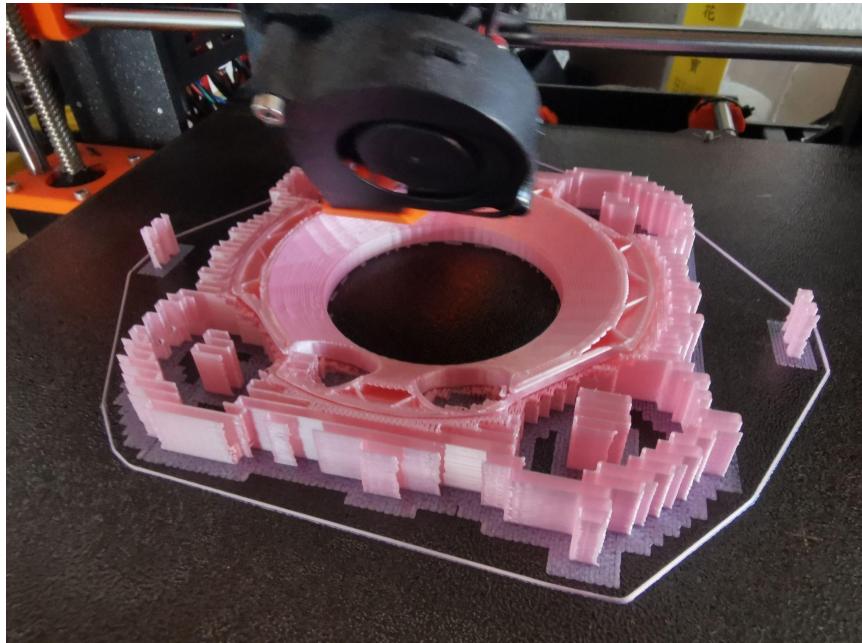
## DEVELOPMENT PROCESS



## DEVELOPMENT PROCESS



DEVELOPMENT PROCESS



DEMONSTRATOR PROCESS

