



Deliverable D24.9

Functional prototypes with all elements integrated

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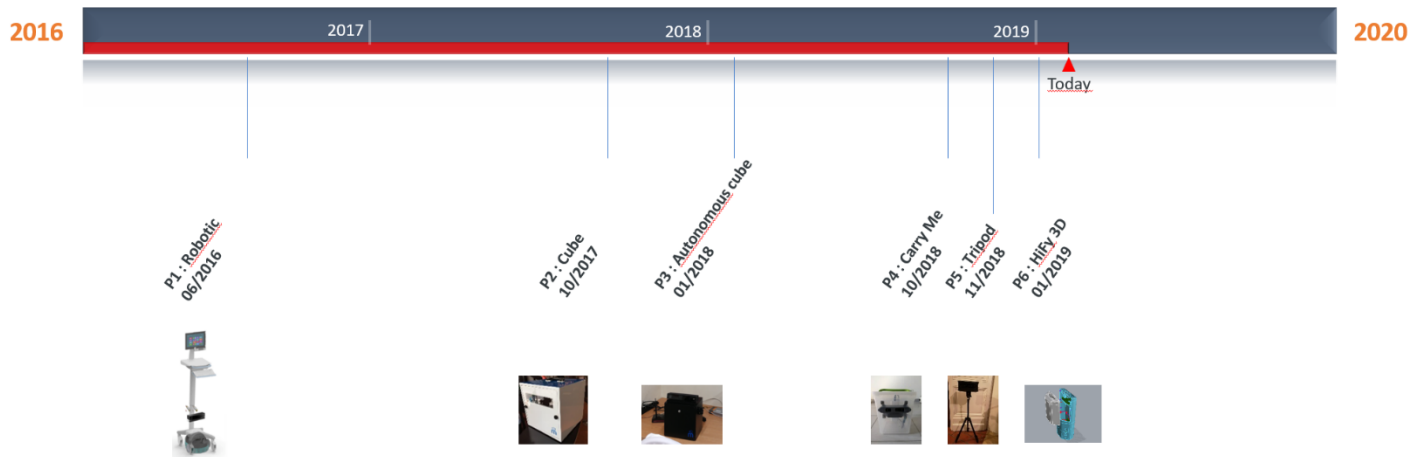
Glossary of Terms

ECHORD++: European Clearing House for Open Robotics Development Plus Plus (E++ for short)

1 Content

This document describes all the prototypes which were designed and used for Echord++ projects.

2 Prototyping timeline



3 Prototype 1 : Robotic

3.1 Datasheet

Material	: Steel / Aluminium
Color	: Metallic oil paint
3D Camera	: Kinect
Processor	: Windows 7 X64
Bot	: ROS 1.0
Power	: Internal – 12V Li-ion
Battery recharge mode	: 12V Adaptor
Distance indicator	: Laser beam
Production time	: 5 Weeks
Components integration time	: 1 Week
Processor preparation time	: 1 day
Total weight	: 40 Kg
Total unit cost	: 10000 €

3.2 Images



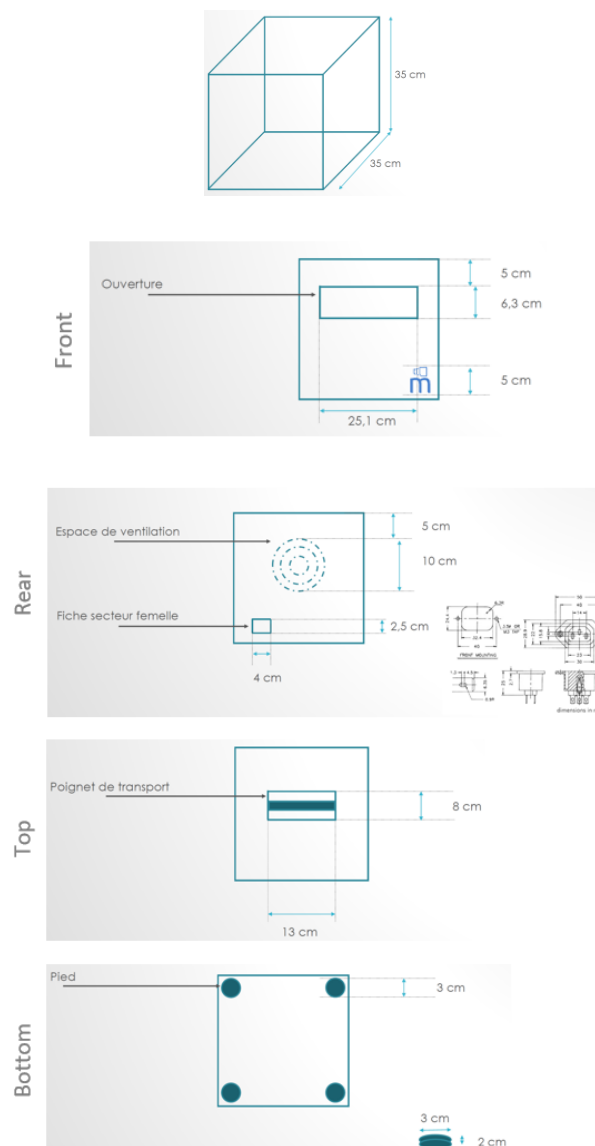
4 Prototype 2 : Cube

4.1 Datasheet

Material	: Wood
Color	: Metallic oil paint
3D Camera	: Kinect
Processor	: Windows 7 X64
Power	: External
Battery recharge mode	: N/A
Production time	: 3 Weeks
Components integration time	: 1 day
Processor preparation time	: 1 day
Total weight	: 10 Kg
Total unit cost	: 3500 €

This material was demoed during the second demonstration in Barcelona (SPAIN)

4.2 Images





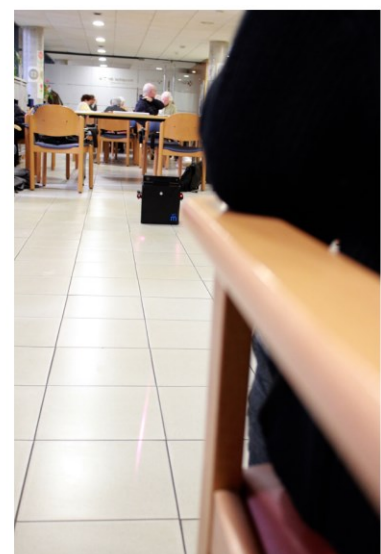
5 Prototype 3 : Autonomous cube

5.1 Datasheet

Material	: Steel
Color	: Metallic oil paint
3D Camera	: Kinect
Processor	: Windows 7 X32 ITX
Power	: Internal 2 x 12V Li-ion
Battery recharge mode	: 24V Adaptor
Distance indicator	: Laser beam
Production time	: 5 Weeks
Components integration time	: 0 day
Processor preparation time	: 1 day
Total weight	: 15 Kg
Total unit cost	: 5000 €

This material was demoed during the second demonstration in Barcelona (SPAIN)

5.2 Images



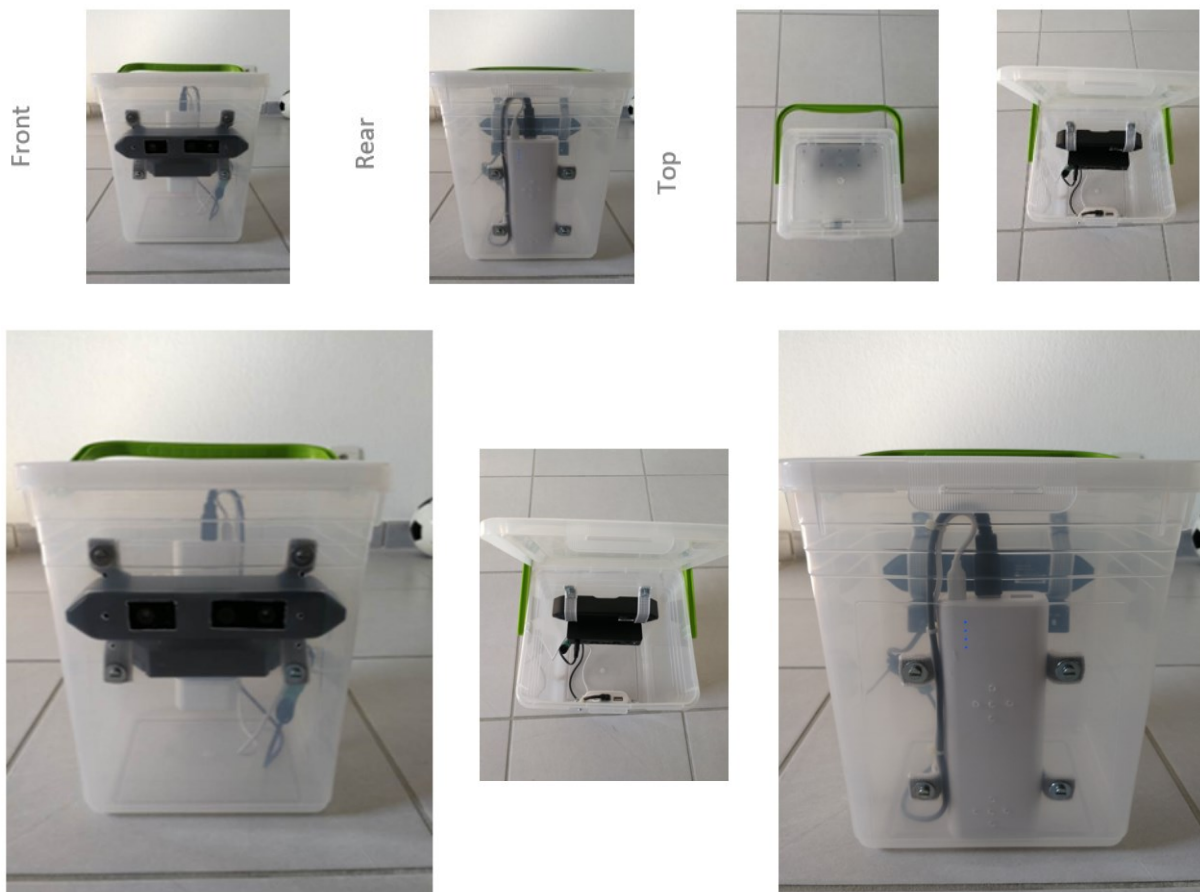
6 Prototype 4 : Carry Me

6.1 Datasheet

Material	: Plastic
Color	: N/A
3D Camera	: Orbec Persee
Processor	: Android 5
Power	: Internal 5V Li-ion
Battery recharge mode	: 5V Adaptor USB – FC
Production time	: 1 day
Components integration time	: 1 day
Processor preparation time	: 1 day
Total weight	: 3 Kg
Total unit cost	: 600 €

This is the first autonomous prototype with batteries on board.

6.2 Images



7 Prototype 5 : Tripod

7.1 Datasheet

Material	: Plastic / Wood
Color	: Metallic oil paint
3D Camera	: Orbec Persee
Processor	: Android 5
Power	: Internal 5V Li-ion
Battery recharge mode	: 5V Adaptor USB – FC
Production time	: 2 day
Components integration time	: 1 day
Processor preparation time	: 1 day
Total weight	: 5 Kg
Total unit cost	: 700 €

7.2 Images



8 Prototype 6 : Hify 3D

8.1 Datasheet

Material	: PLA
Color	: N/A
3D Camera	: Orbec Persee
Processor	: Android 5
Power	: Internal 5V Li-ion
Battery recharge mode	: 5V Adaptor USB – FC
Production time	: 1 week
Components integration time	: 1 day
Processor preparation time	: 1 day
Total weight	: 4 Kg
Total unit cost	: 2800 €

This prototype is 3D printed using a PLA material. It was demoed during the third demonstration in Bruxelles (BELGIUM).

8.2 Images

