



Projet RobAIR

An affordable DIY cobot for telepresence

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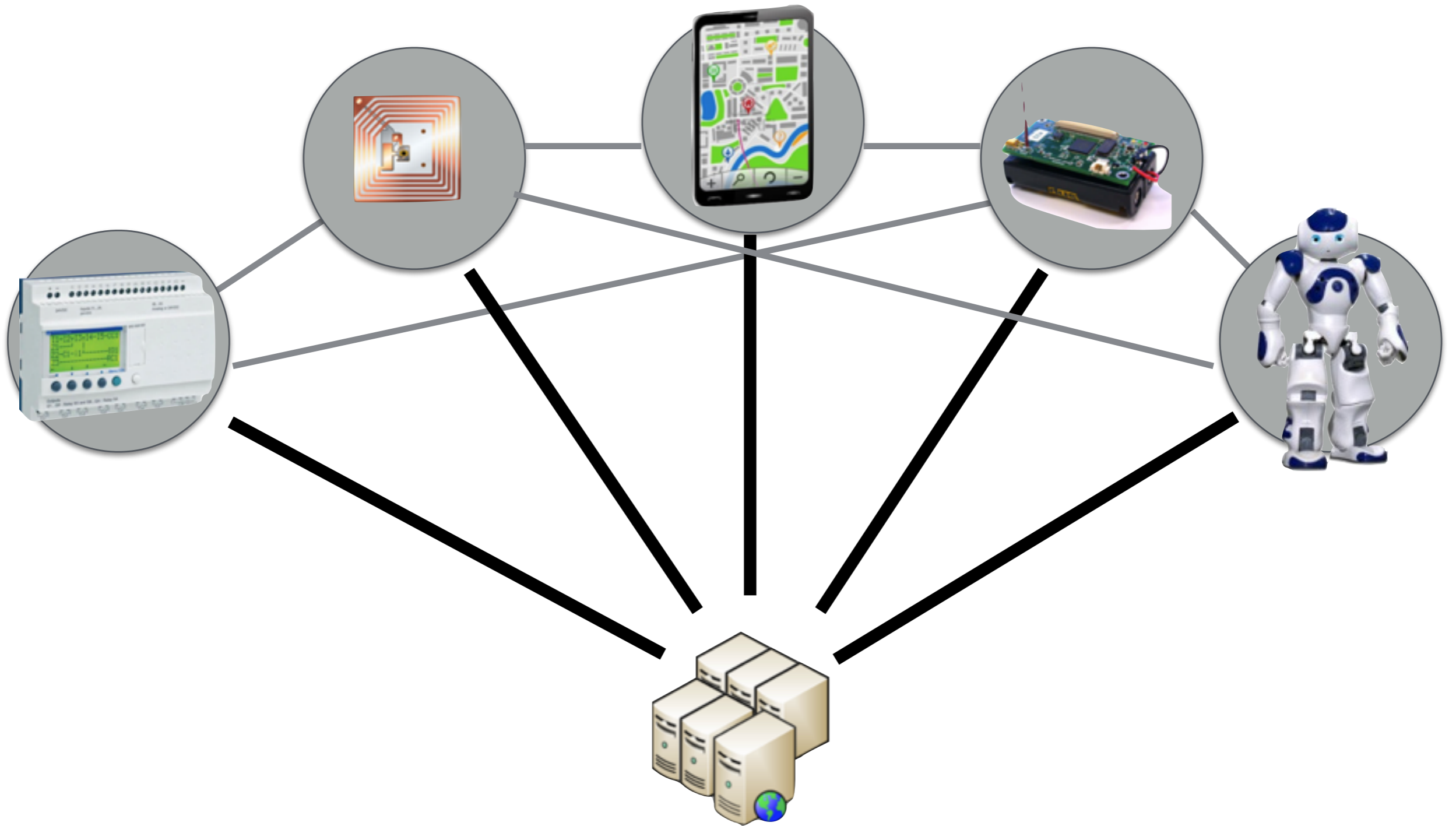
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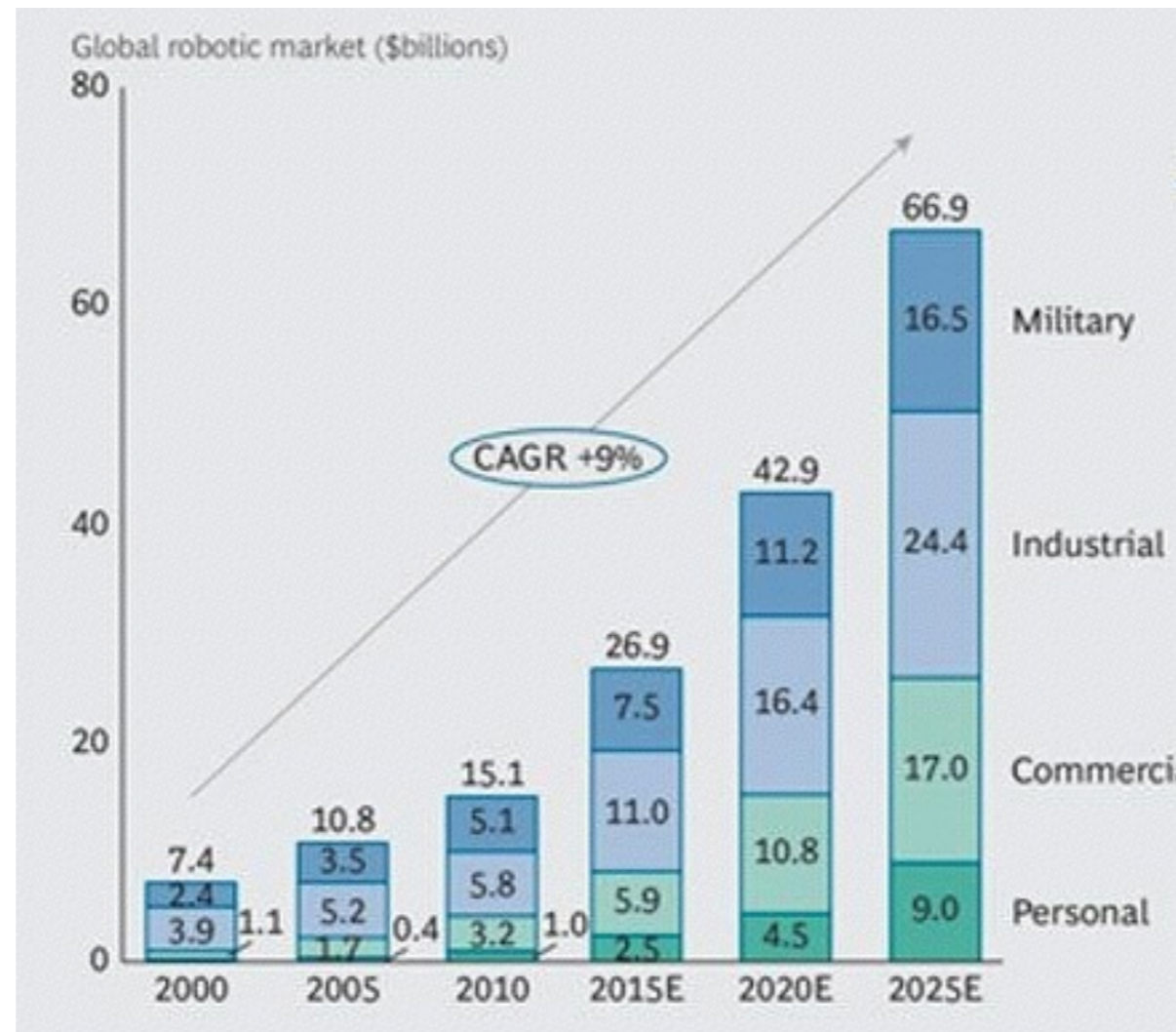
didier.donsez@imag.fr (ERODS)



The IoT Wonderland



robot's family





the wizard

The magic ingredients



ROS

Applications Places System 1.60 GHz 1.60 GHz Sun Oct 24, 12:31 PM roalter

rxgraph

Path: / Quiet All topics

```
graph LR; hardware((/hardware)) -- "/hardware/window/status" --> driver((/driver)); hardware -- "/hardware/draw3/status" --> driver; hardware -- "/hardware/draw2/status" --> driver; hardware -- "/hardware/plantlamp/status" --> driver; hardware -- "/hardware/lamp1/status" --> driver; hardware -- "/hardware/lamp2/status" --> driver; hardware -- "/hardware/draw1/status" --> driver; hardware -- "/hardware/door/status" --> driver; hardware -- "/hardware/hatch/status" --> driver; hardware -- "/hardware/update" --> driver; driver -- "/virtual/lamp2/command" --> gazebo((/gazebo)); driver -- "/virtual/slidedown/command" --> gazebo; driver -- "/virtual/door/command" --> gazebo; driver -- "/virtual/plantlamp/command" --> gazebo; driver -- "/virtual/lamp1/command" --> gazebo; driver -- "/virtual/slideup/command" --> gazebo; driver -- "/virtual/window/command" --> gazebo; driver -- "/virtual/slidemiddle/command" --> gazebo; driver -- "/virtual/hatch/command" --> gazebo; driver -- "/clock" --> gazebo; gazebo -- "/clock" --> lighting((/virtual/lighting_controller)); gazebo -- "/clock" --> object((/virtual/object_controller)); gazebo -- "/clock" --> manual((/manualcontroller)); manual -- "/rosout" --> rosout((/rosout)); fan((/cognitiveoffice/fan)) -- "/rosout" --> rosout; weather_home((/environment/weather_home)) -- "/rosout" --> rosout; twitter((/social/socialize_twitter)) -- "/rosout" --> rosout; infratec((/cognitiveoffice/infratec)) -- "/rosout" --> rosout; facebook((/social/socialize_facebook)) -- "/rosout" --> rosout; weather_office((/environment/weather_office)) -- "/rosout" --> rosout; rosout -- "/rosout" --> hardware; rosout -- "/rosout" --> driver; rosout -- "/rosout" --> gazebo; hardware -- "/hardware/draw1/control" --> manual; hardware -- "/hardware/plantlamp/control" --> manual; hardware -- "/hardware/hatch/control" --> manual; hardware -- "/hardware/lamp1/control" --> manual; hardware -- "/hardware/lamp2/control" --> manual; hardware -- "/hardware/window/control" --> manual; hardware -- "/hardware/door/control" --> manual; manual -- "/rosout" --> rosout; rosout -- "/rosout" --> manual; rosout -- "/rosout" --> fan; rosout -- "/rosout" --> weather_home; rosout -- "/rosout" --> twitter; rosout -- "/rosout" --> infratec; rosout -- "/rosout" --> facebook; rosout -- "/rosout" --> weather_office;
```

Info:

Node [/environment/weather_office]
Publications:
* /rosout [roslib/Log]
* /environment/weather_office [ce_environment/Weather]

Subscriptions: None

Services: None
Pid: 7304

Connections:
* topic: /rosout
* to: /rosout
* direction: outbound
* transport: TCPROS

roalter@amun: ~/Entw... Gazebo Manual Cognitive Offic... rxgraph

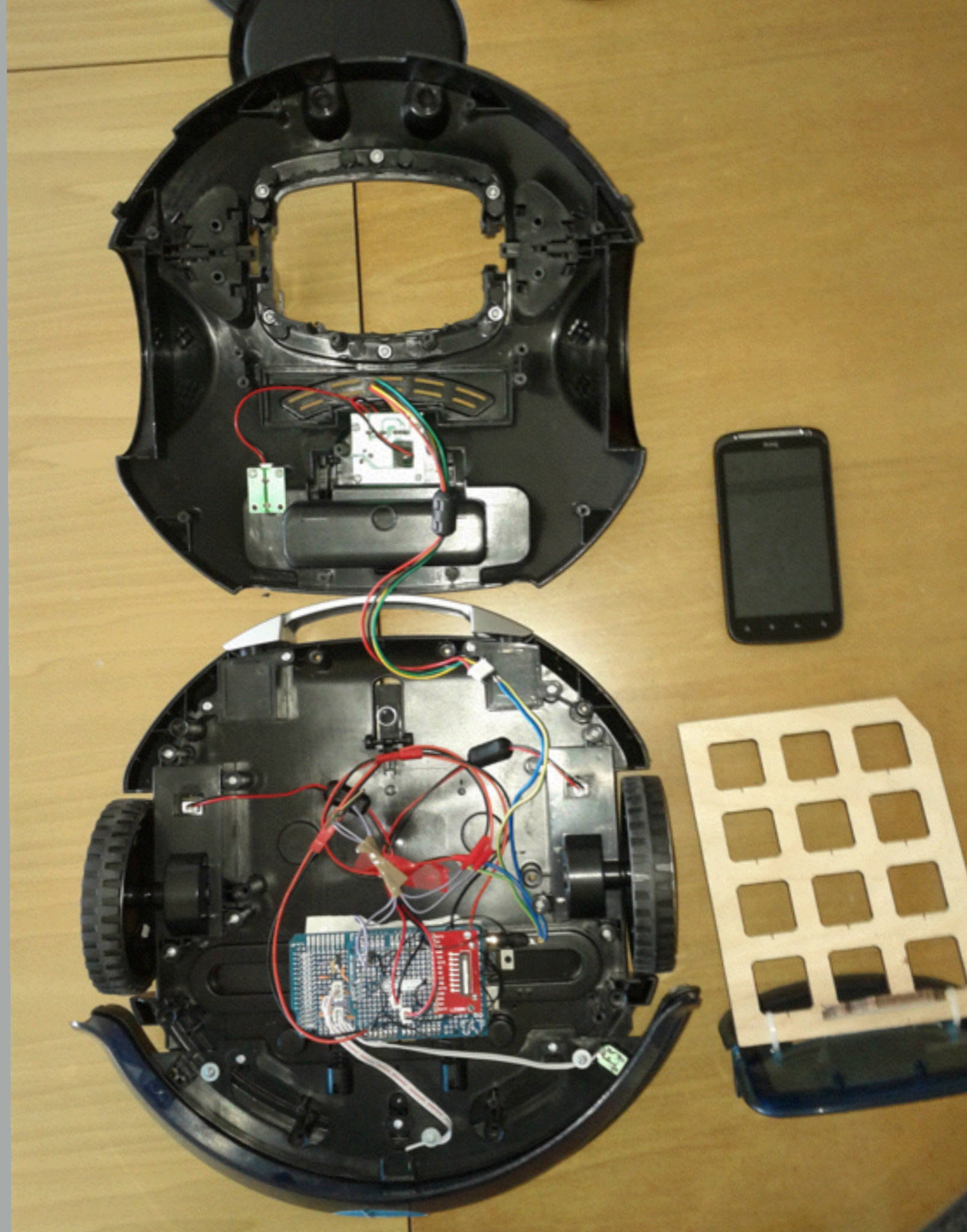
the vision



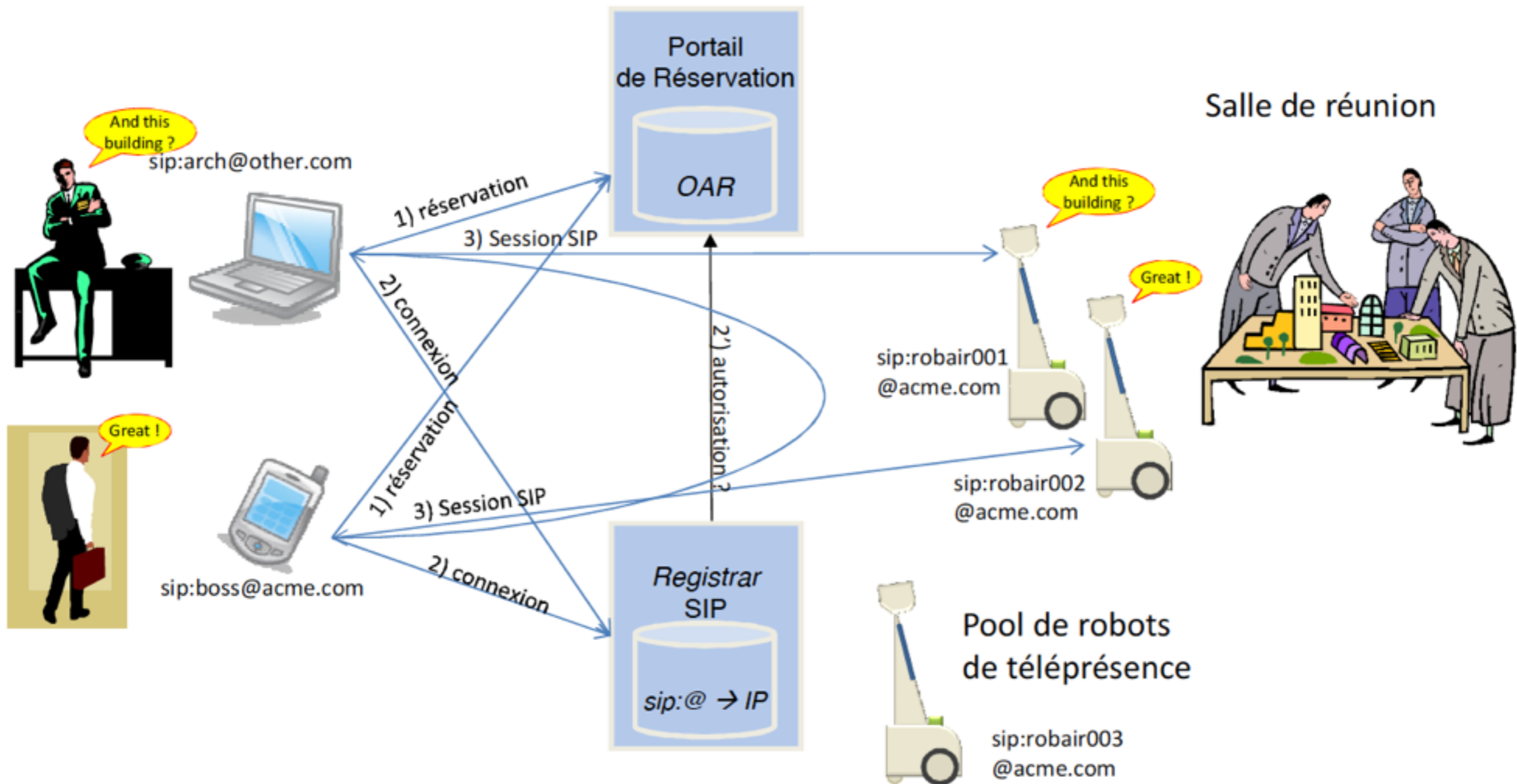
the
beginning



the privacy
zone

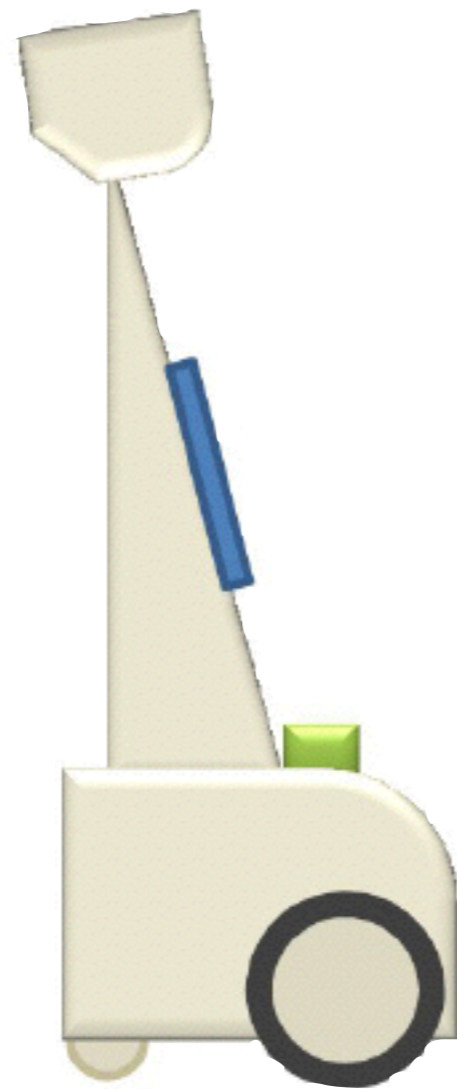


Architecture





1-1,3 mètre de hauteur



tête articulée
pan-tilt
avec caméra
stéréoscopique

écran tactile
11-13 pouces

grille de microphones
haut-parleurs

cartographie
laser (lidar) + IR (kinect)

2 roues motorisées
+ roue folle
batterie

**back on
track**

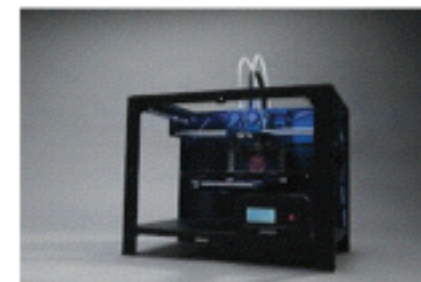
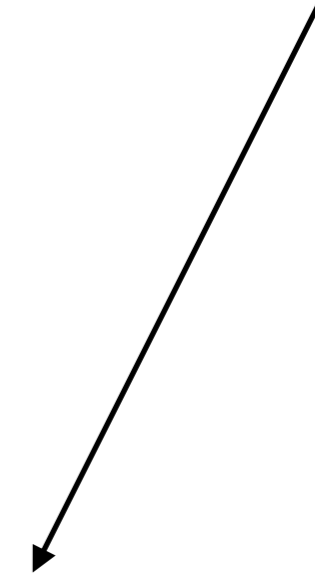
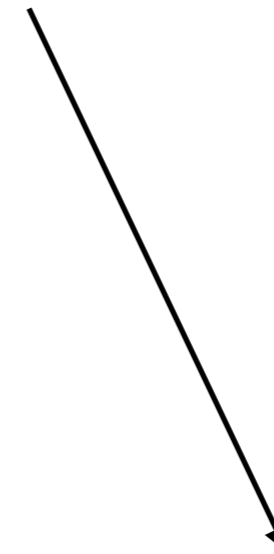
rough
prototype



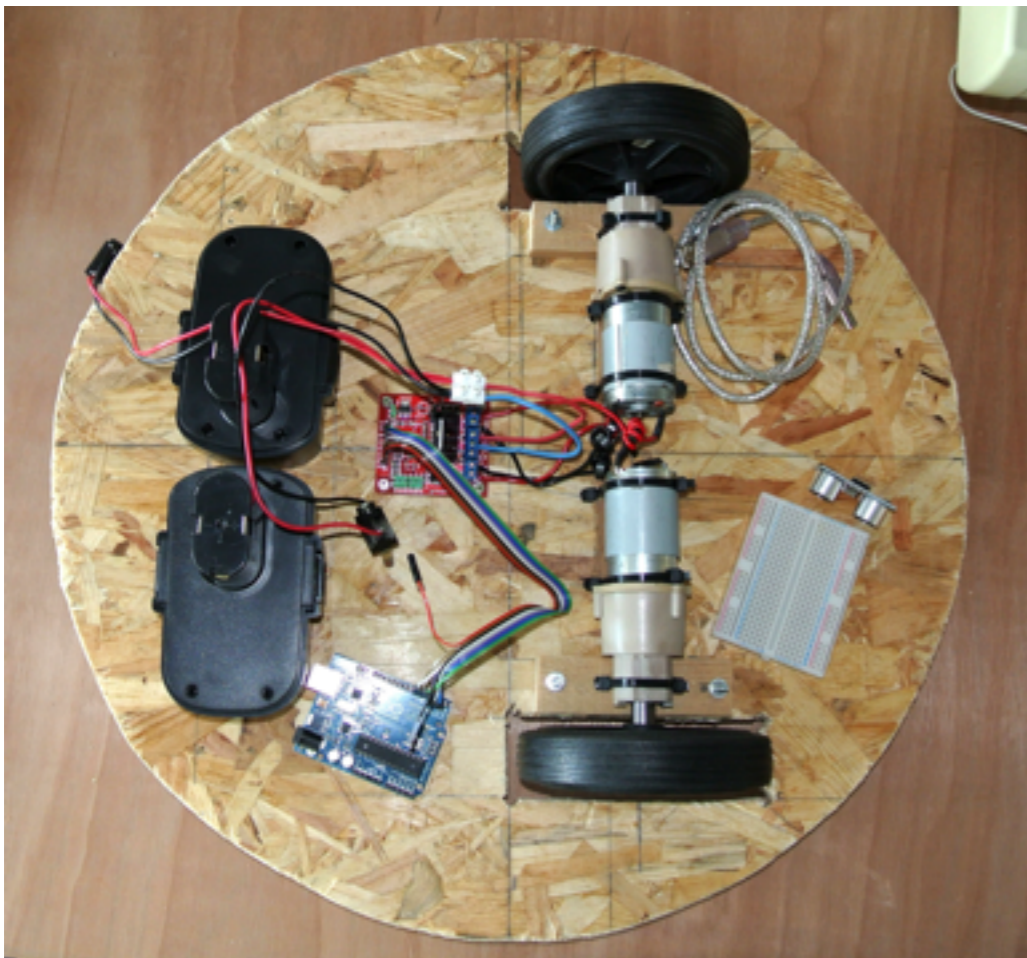


new look

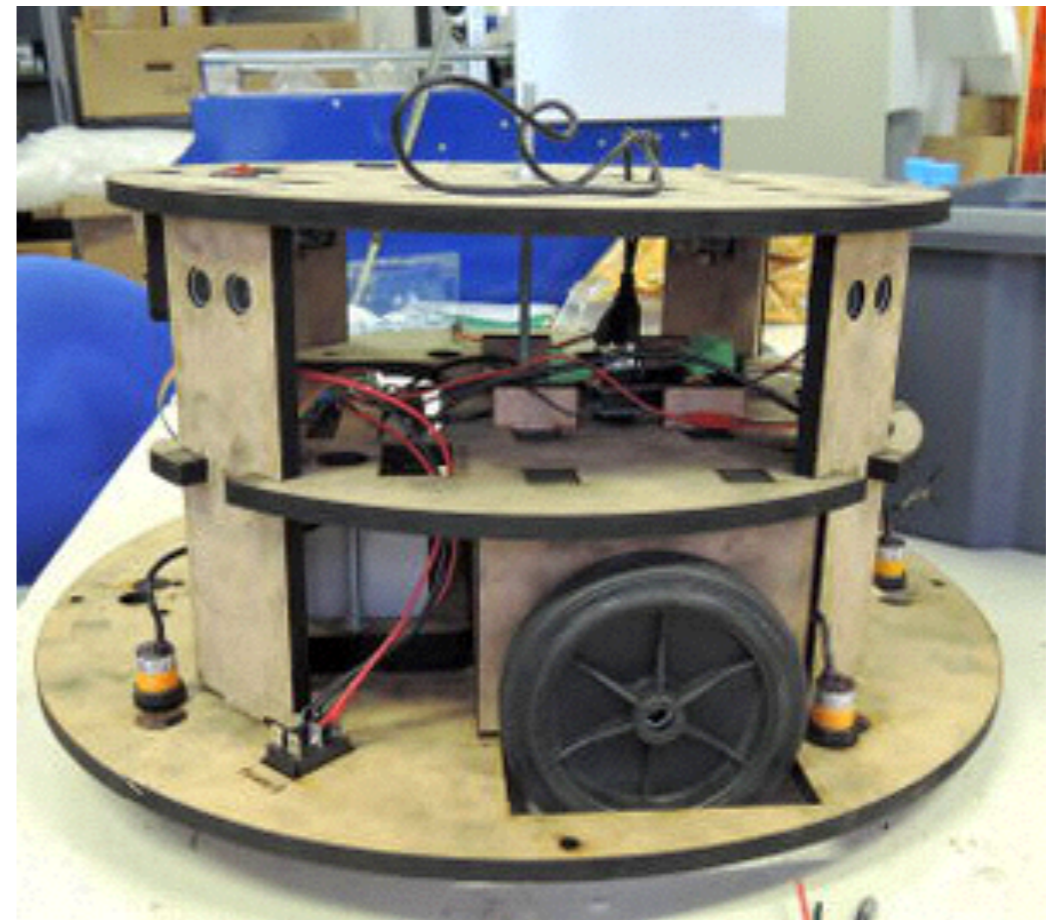
time of fablab



new tools



before



after

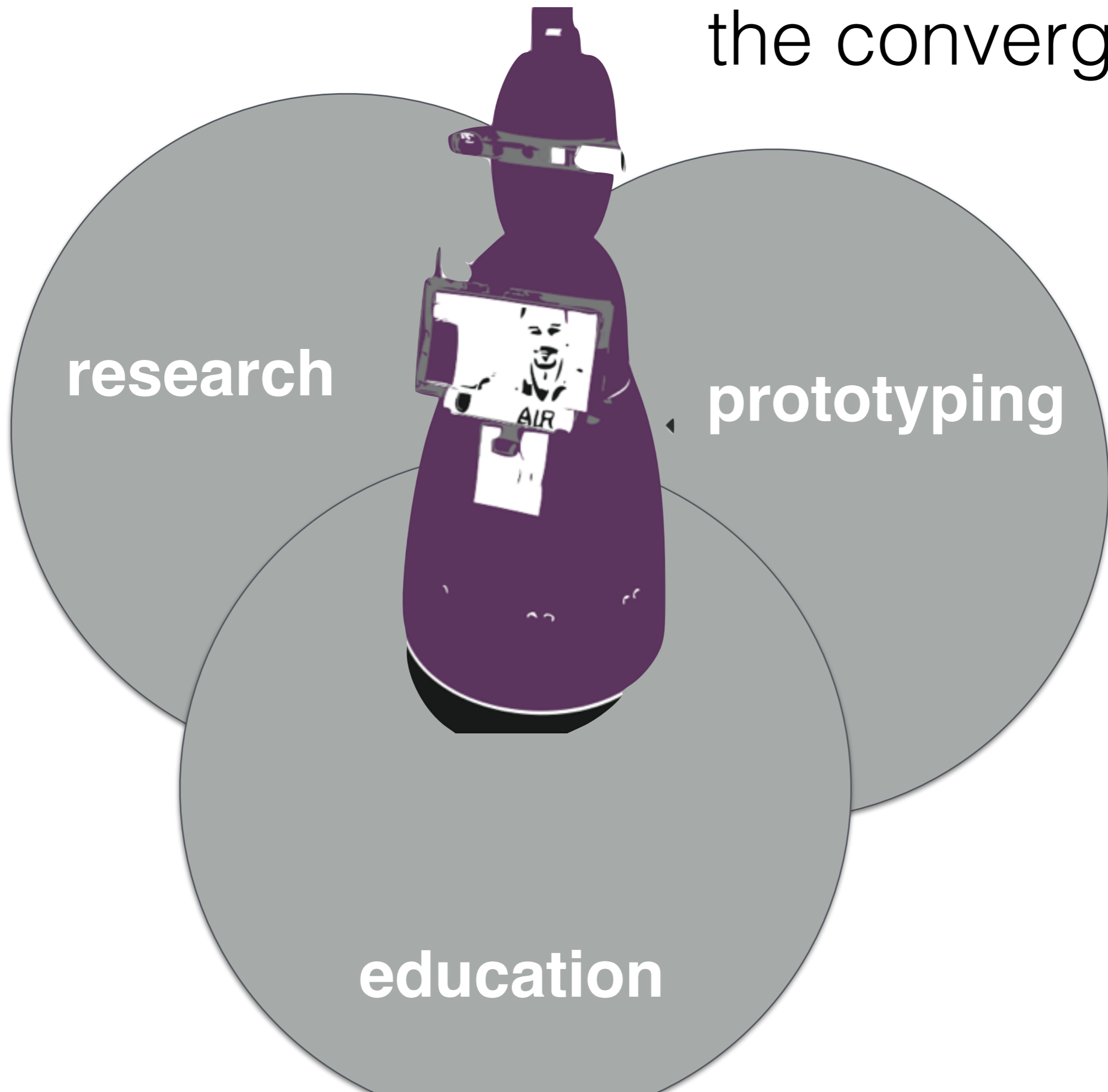


new results

EclipseCon 2014

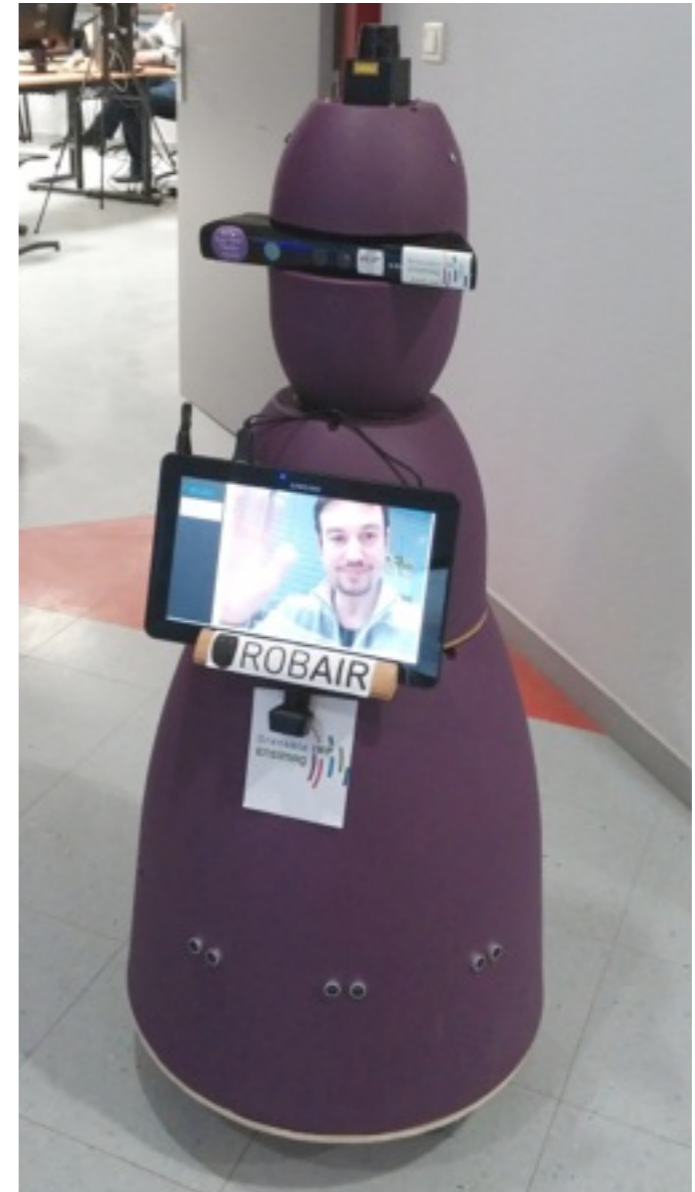


the convergence





Conclusion



Video

