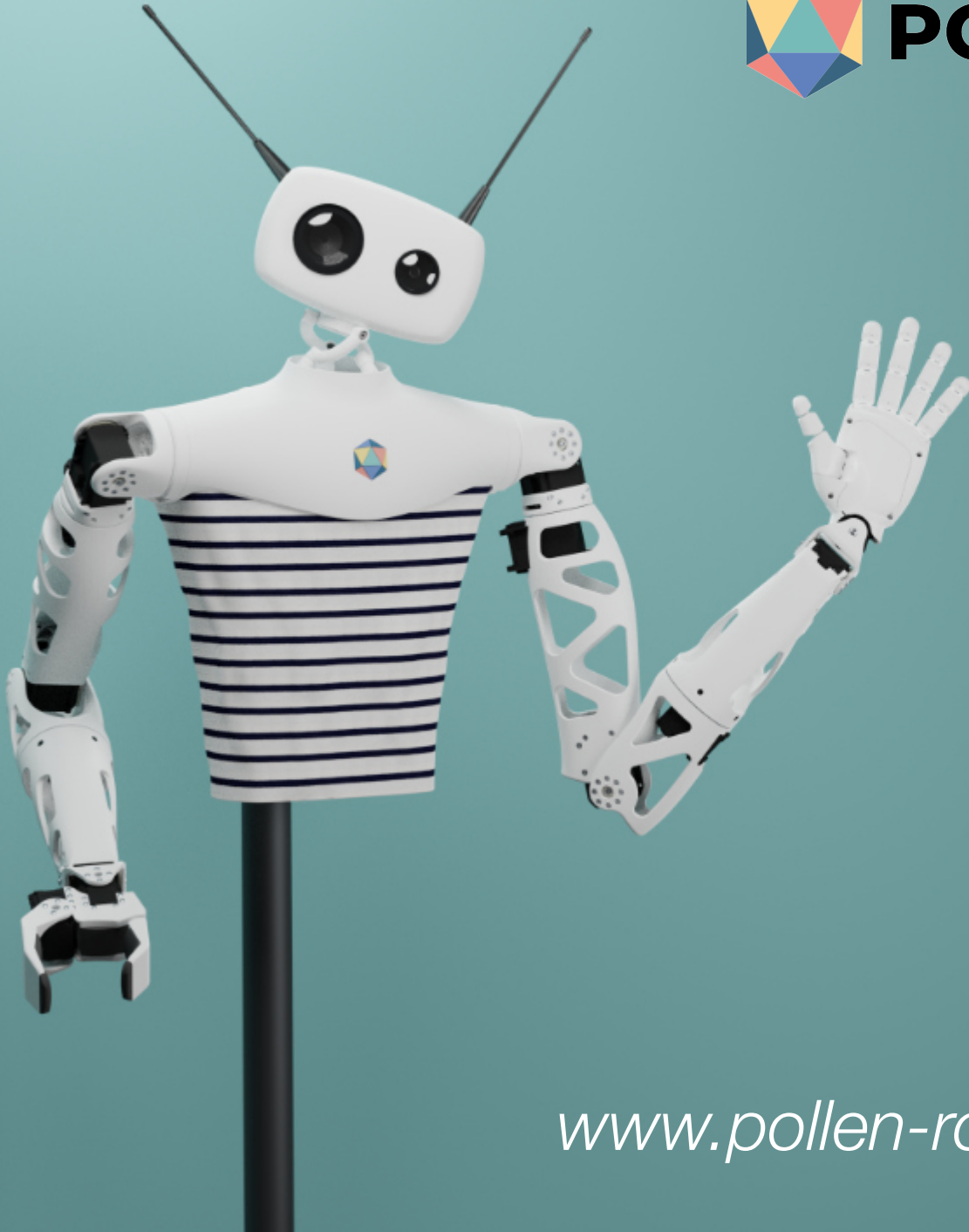




POLLEN ROBOTICS



**Hello,
I'm Reachy!**

www.pollen-robotics.com

Who is Reachy?

Reachy is Pollen Robotics' latest innovation!

He is an expressive open-source humanoid service robot specialized in **interacting with people and manipulating objects.**

This easy plug-and-play robot is built with prepackaged AI and modular robotics that allow you to **kickstart any real-world application.**



The world is your playground

It is our belief that in 5 years' time, not one day will go by without most of us interacting with a robot.

Reachy is the **only humanoid service robot that is open source and can manipulate objects**. He mimics human expressions and body language, with a cute free-moving head and antennas as well as bio-inspired arms.

Reachy is the optimum platform to **create real-world interactive & service applications right away**.

Some usage examples:



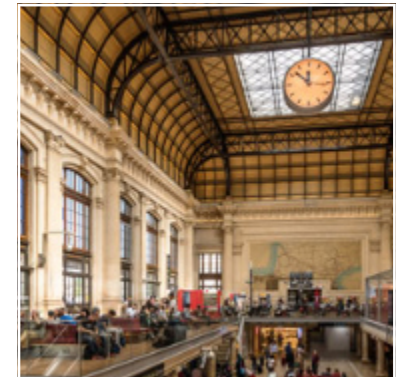
Extension for disabled people



Events experience



Assistant in small businesses



Receptionist in public spaces

A unique open prototyping platform

Reachy makes AI & robotics accessible to **researchers, innovation professionals and creatives.**

Reachy offers **ready-to-use operational environments** (*playing noughts and crosses, serving coffee, playing musical instruments, handing out specific objects,...*).

Reachy **saves you time and reduces costs** by providing basic modular robot blocks. You can jump straight into your desired application and start prototyping.

It is also **fully customizable** with open hardware, software and data!



Make the robot you'll love

Reachy comes in modular parts you can combine according to your needs.



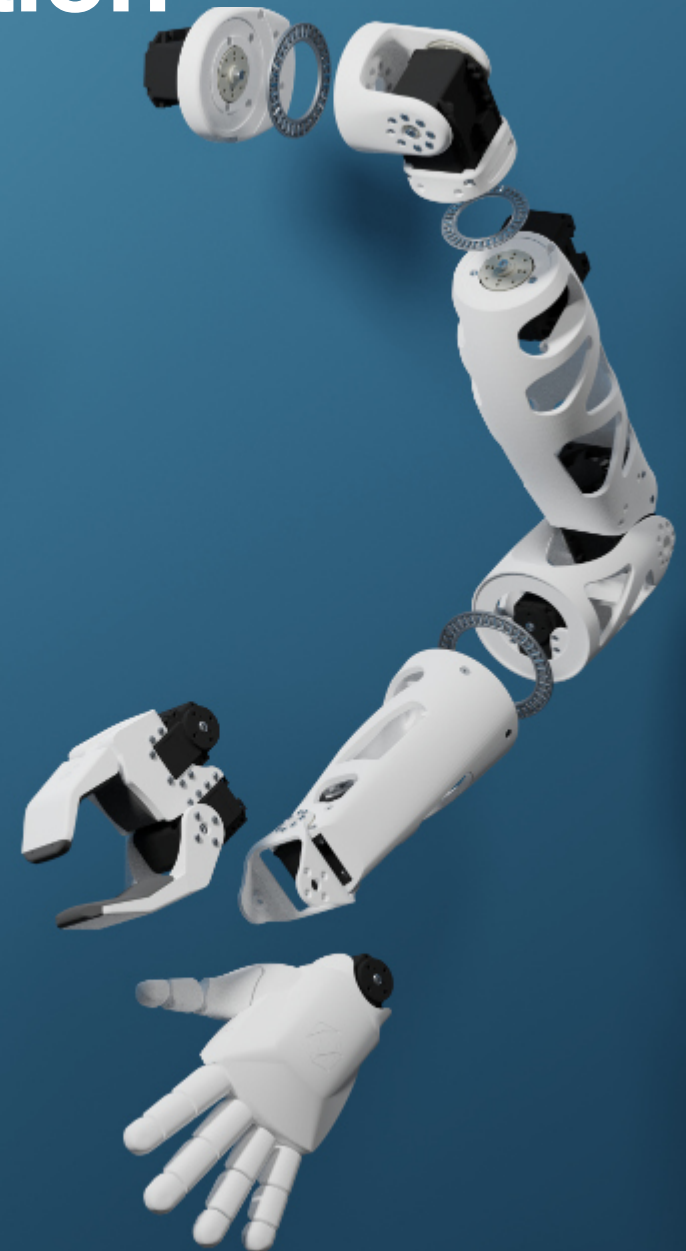
Arm for object manipulation

With 7 degrees of movement, Reachy's arm features similar dimensions, proportions and movements to an **adult human arm**.

Its lightweight conception and high-quality joints allow for **precise and safe interaction**.

Various hand options can be attached to best fit your **object-manipulation application**.

An alternative version of the arm is available for **increased performance** on tasks that require longer-term usage and particular strength.



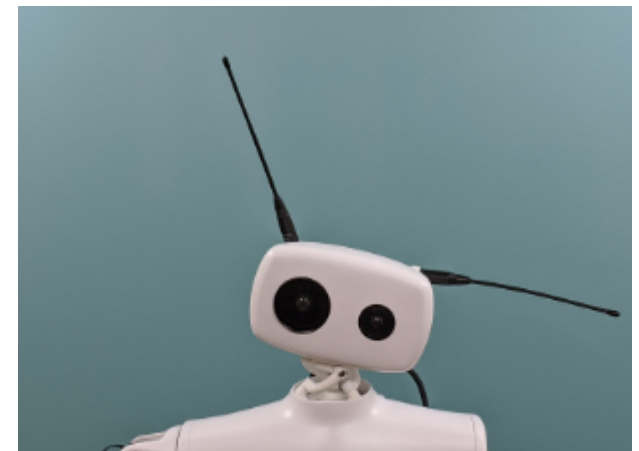
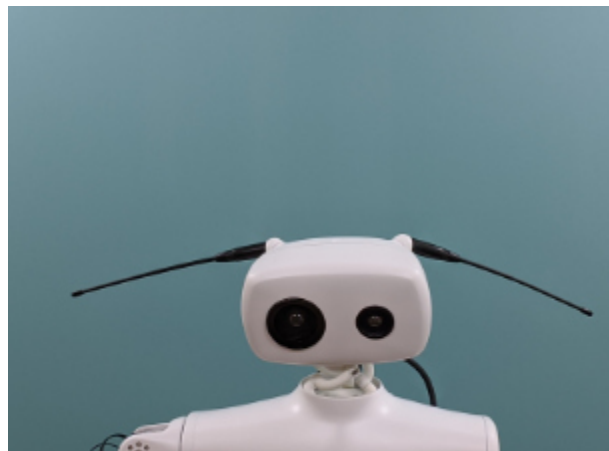
Expressive head

Reachy's cute head module **brings empathy and environment analysis** to your application.

Reachy's head features two cameras: one to observe its environment and another camera to focus on the task of manipulating.

The **head is animated by Orbita**, a unique technology developed by Pollen Robotics' R&D team. This ball joint actuator allows unprecedented dynamic and multi-directional movement.

With **animated antennas**, Reachy can convey many emotions to his audience (happy, sad, excited...).



[See the head in action in this video : https://youtu.be/otjMuBSYA5Y](https://youtu.be/otjMuBSYA5Y)

Plug'n'play installation

Reachy's chest module integrates high-end computation and electronics in a neat plug'n'play design. **Reachy can be easily implemented** into any private or public environment, without the need for an internet connection.

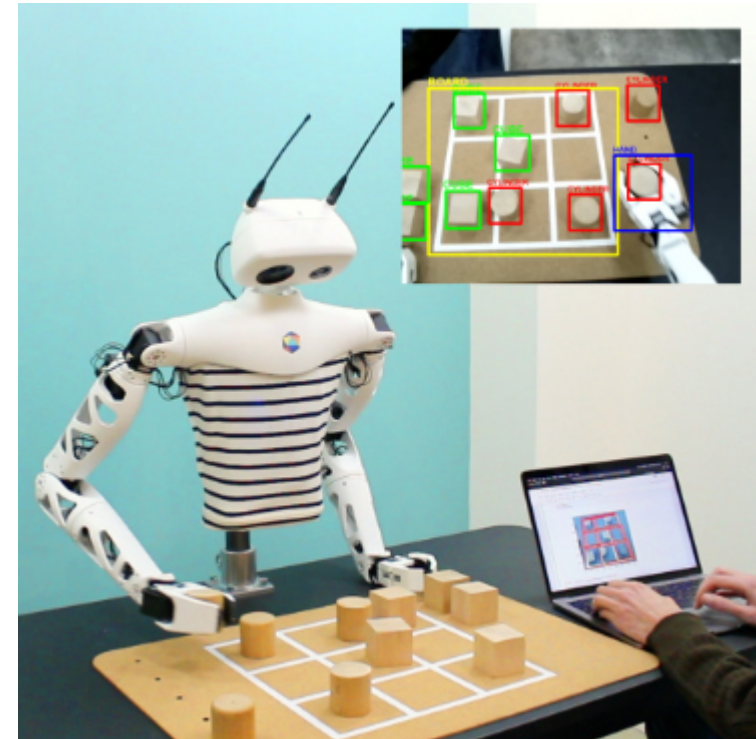


Explore AI with Reachy

Thanks to Reachy's features, you **benefit from state-of-the-art Machine Learning** and can explore advanced Reinforcement Learning.

Cameras, sensorimotor data logging, hardware for NLP, 3D tracking, VR, built in vision and kinematics ML algorithms...you name it.

Our **open data policy** allows you to feed your AI algorithm with more diverse data coming from other Reachys in the world!



[Example of ML usage https://youtu.be/Hk1BjEqp7-0](https://youtu.be/Hk1BjEqp7-0)



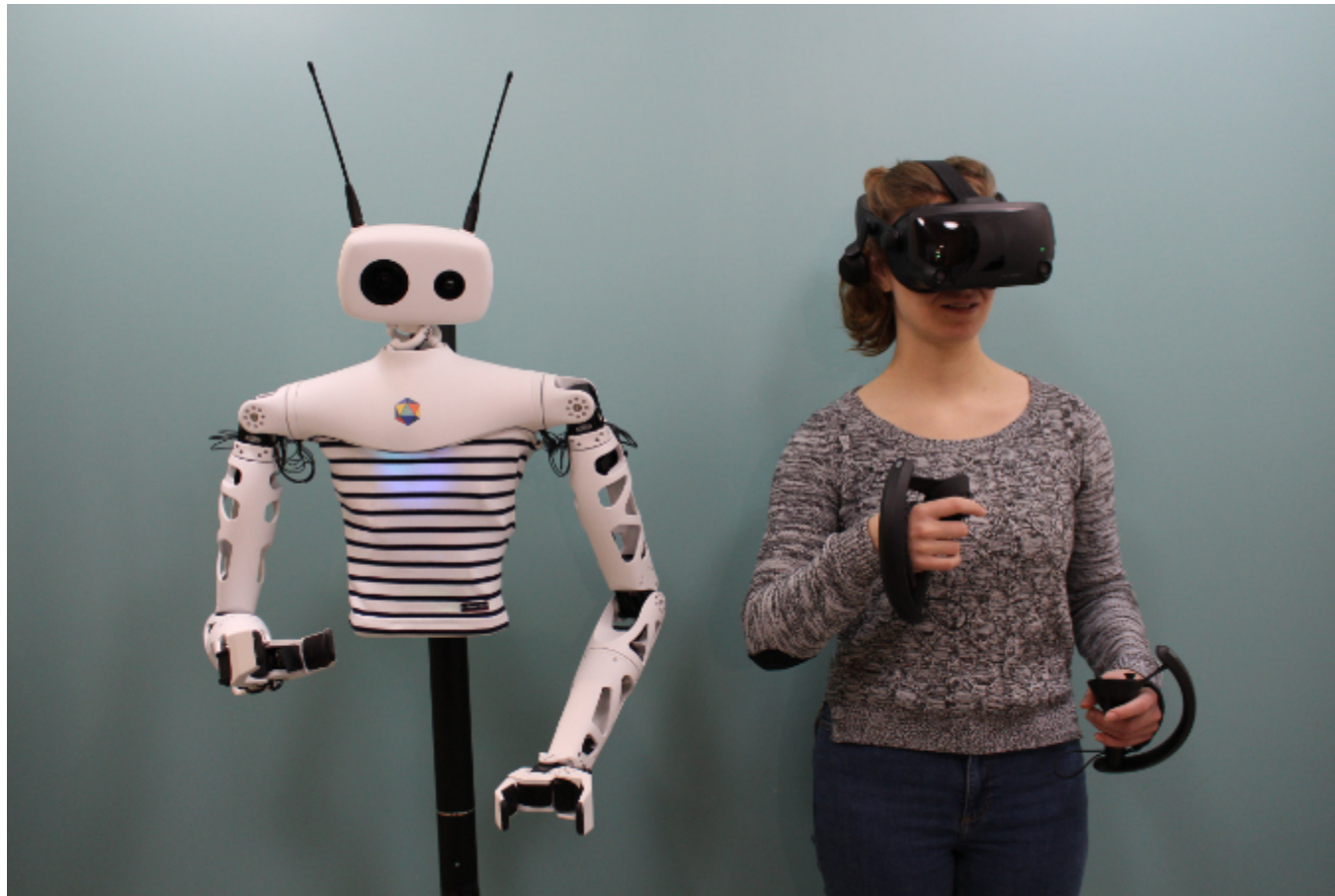
Coral



snips

Take control remotely

Using a VR device and our Teleoperation App, take full control of Reachy's motions remotely, while seeing through his cameras. Teleoperation opens up new possibilities to teach Reachy complex manipulations and provide advanced service. The app works locally and remotely via an internet connection.



[Discover what you can do: https://youtu.be/IRWna6mEMv0](https://youtu.be/IRWna6mEMv0)

About Pollen Robotics

We're a French startup founded in Bordeaux in 2016. We develop humanoid service robots specialized in interaction and manipulation of objects. We provide academic researchers and innovation professionals with a turnkey AI robotics solution so they can kick-start their prototyping.

What makes Pollen Robotics unique?

- Founded by developmental robotics researchers in INRIA - a world-leading French AI research institute - with solid experience in human-robot interaction and robot design.
- User interaction is at the heart of our design: our robots are able to evolve in a complex and unconstrained world where man/robot understanding and mutual acceptance are necessary.
- Pretty much everything we make is open-source. Open software, open hardware, open data...We aim to foster knowledge-sharing in the community to kick-start the AI revolution
- We bring simple, elegant and user-friendly design to our users so they stay focused on they very own application of AI robotics

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