

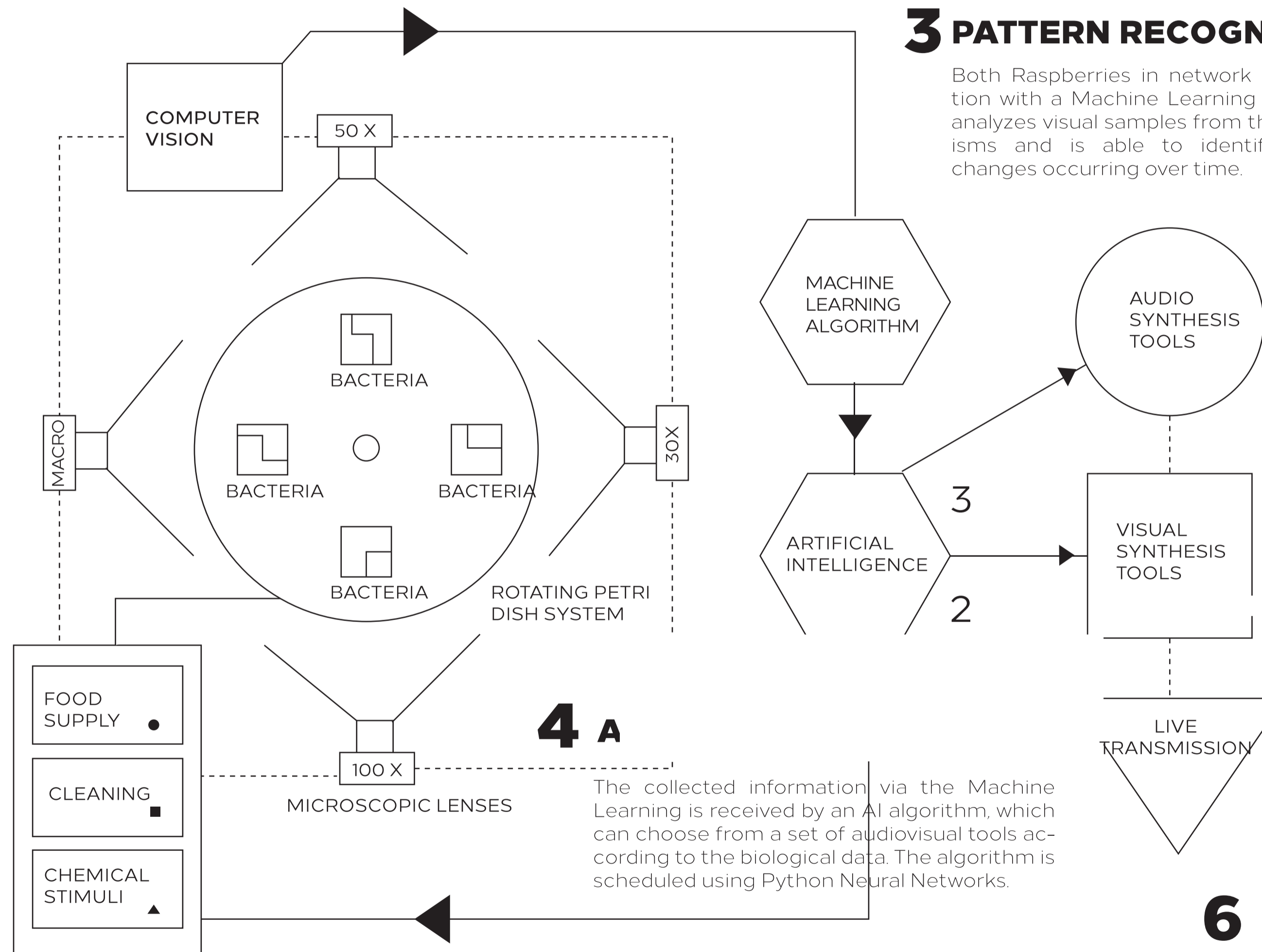
INTERSPECIFICS

Ontological Machines

SPECULATIVE COMMUNICATION

2 COMPUTER VISION

A collection of microscope lenses of different scopes, each connected to a Raspberry Pi programmed with OpenCV libraries in Python performing motion tracking and shape arrangements.



1 BIOLOGICAL MAINTENANCE

Central module of the system where the microorganisms –living in different media such as microcircuits and petri dishes– are being fed, cleaned and stimulated. A Raspberry Pi controls all the software process and an Arduino is in charge off all mechanical parts.

3 PATTERN RECOGNITION

Both Raspberries in network share information with a Machine Learning algorithm that analyzes visual samples from the microorganisms and is able to identified organized changes occurring over time.

5 AUDIOVISUAL GENERATOR

The audiovisual generator is a module where the Artificial intelligence is free to compose using both visual and sound tools, through OpenFrameworks for the former and Supercollider for the latter. This module is completely built by the experience of the AI, which in its co-evolutionary process in conjunction with the microorganism would be able to produce a generative piece.

6 LIVE TRANSMISSION

The resulting piece will be transmitted in real time to allow viewers to witness the evolutionary process of the system in real time.

4 A

The collected information via the Machine Learning is received by an AI algorithm, which can choose from a set of audiovisual tools according to the biological data. The algorithm is scheduled using Python Neural Networks.