Wall-E Control Hierarchy

Level 1

A powerful mini computer
(Raspberry Pi)

Level 2

Microcontroller
(Arduino)

Microcontroller
(Arduino)

Microcontroller
(Arduino)

Level 3

Sensors

Actuators

Sensors

Actuators

Sensors

Actuators
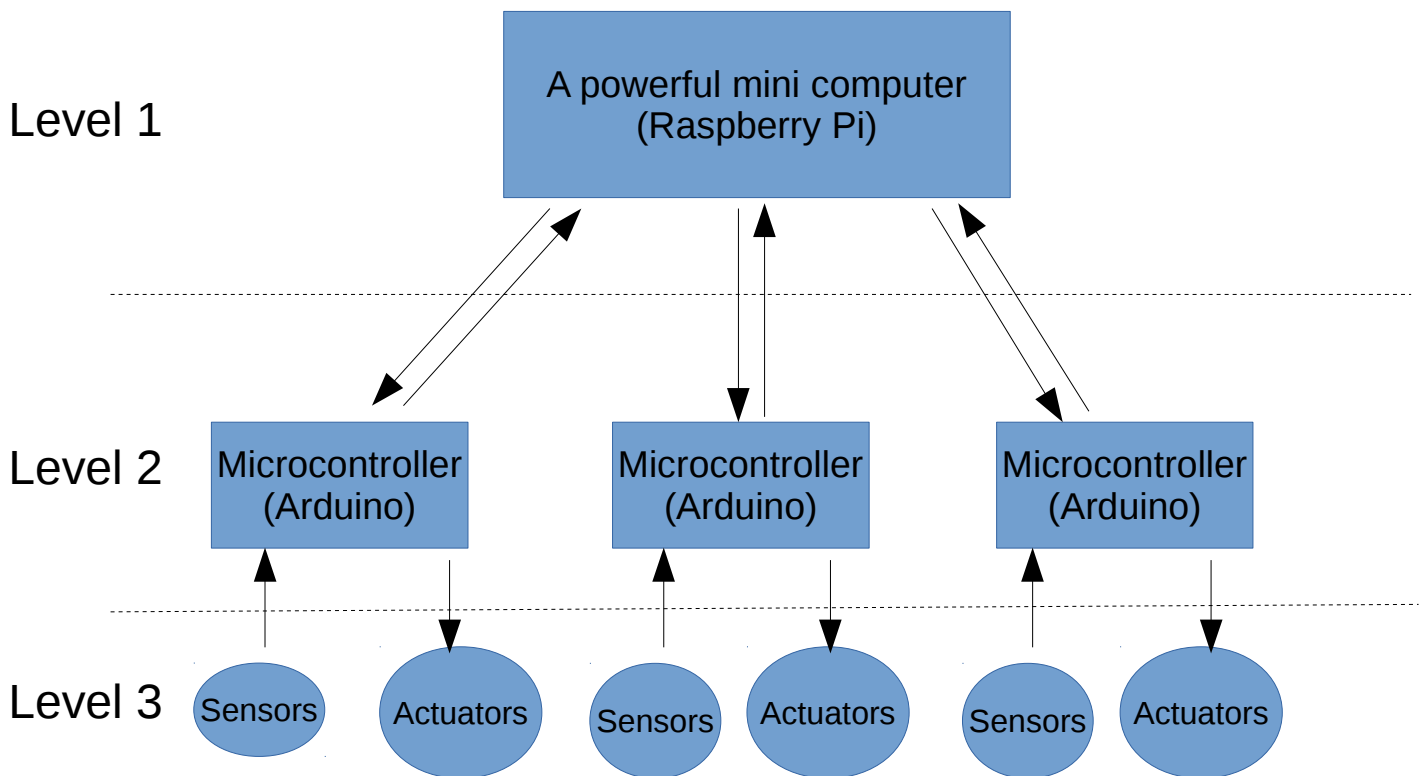
Level 1 :
- Machine Learning
- Image Processing
- Speech Processing
- Data acquisition from Slaves
- Giving Specific Instruction to the Slaves

Level 2 :
- Data acquisition
- Controlling the Actuators
- Responding to requests of master
- Taking some low level decisions

Level 3 :
- Sensors for sensing various environmental parameters
- Sesnors for determining the acceleration, tilt, etc
- Actuators for various movements and locomotion