

## Morphological analysis for robot base

Feature	Option 1	Option 2	Option 3	Option 4
Base shape	Rectangular	Diamond	Spherical	Square
Base wheels	Mecanum wheel	Fixed wheel	Omni wheels	Ball wheel
Ballon stand	Column with base	Small fan with thread	Pole and ring	Thread and ballon filled with helium gas
Motors	Stepper motor	Burshed motor	Burshless motor	Servo motor
Material	Plastic	Wood	Glass	Aluminum
Direction control	Mobile application	Wireless controller	Joystick	—
Power supply	Battery	Solar panel	—	—
Speed control	Automatic	Manual	Switch on – off	—

### ❖ First choice:

Rectangular + Mecanum wheel + Column with base + Stepper motor + Plastic + Mobile application + Battery + Automatic

### ❖ Second choice:

Spherical + Omni wheel + Small fan with thread + Burshed motor + Glass + Wireless controller + Solar panel + Manual