



Maintenance Tips for Keeping Your Robots in Optimal Condition

Regular Maintenance Schedules

1. Daily Maintenance:

- **Visual Inspection:** Check for any visible signs of wear, damage, or loose components.
- **Clean Sensors and Cameras:** Use a soft, dry cloth to clean sensors and cameras to ensure clear readings and vision.
- **Check Power Levels:** Ensure batteries are fully charged and inspect for any signs of wear or damage.
- **Software Updates:** Verify that the robot's software is up to date with the latest patches and updates.

2. Weekly Maintenance:

- **Lubricate Moving Parts:** Apply appropriate lubricants to all moving parts to reduce friction and wear.
- **Check for Loose Bolts and Screws:** Tighten any loose bolts or screws to maintain structural integrity.
- **Inspect Wheels and Tracks:** Check wheels and tracks for wear and tear; replace if necessary.
- **Clean Air Filters:** If your robot has air filters, clean or replace them to ensure optimal airflow and cooling.

3. Monthly Maintenance:

- **Deep Clean:** Perform a thorough cleaning of the robot, including all exterior and interior components.
- **Battery Health Check:** Test the battery's health and replace it if it shows signs of reduced capacity or wear.
- **Calibration:** Calibrate sensors and cameras to maintain accuracy in operations.

- **Check and Replace Consumables:** Inspect and replace consumables such as brushes, pads, or any other replaceable parts.

4. **Quarterly Maintenance:**

- **Comprehensive Inspection:** Conduct a detailed inspection of all components, including the internal circuitry.
- **Firmware Updates:** Ensure all firmware is up to date to benefit from the latest features and improvements.
- **Performance Testing:** Run performance tests to identify any potential issues or areas for improvement.
- **Safety Checks:** Verify all safety systems are functioning correctly.

5. **Annual Maintenance:**

- **Professional Servicing:** Schedule a professional service to conduct an in-depth maintenance check.
- **Replace Worn Parts:** Replace any parts that show significant wear or have reached the end of their expected lifespan.
- **Upgrade Hardware:** Consider upgrading hardware components if newer, more efficient options are available.
- **Review Usage Logs:** Analyze usage logs to identify patterns that may indicate potential future issues.

Best Practices for Extending the Life of Your Robots

1. **Environment Control:**

- **Avoid Extreme Conditions:** Keep robots away from extreme temperatures, moisture, and dust.
- **Stable Surface:** Ensure the robot operates on a stable, level surface to prevent unnecessary strain.

2. **Proper Handling:**

- **Handle with Care:** Avoid dropping or bumping the robot, as physical shocks can damage internal components.
- **Transport Safely:** Use appropriate packaging and transportation methods when moving robots between locations.

3. **Battery Care:**

- **Regular Charging:** Avoid letting the battery completely drain. Regularly charge to maintain battery health.
- **Store Correctly:** If not in use for extended periods, store the battery in a cool, dry place with a partial charge.

4. **Software Management:**

- **Regular Updates:** Keep the robot's software and firmware updated to ensure optimal performance and security.
- **Monitor Performance:** Use built-in diagnostics and monitoring tools to track performance and identify issues early.

5. **Training and Usage:**

- **Proper Training:** Ensure all users are properly trained in the correct operation and handling of the robot.
- **Follow Manufacturer Guidelines:** Adhere to the manufacturer's guidelines and recommendations for maintenance and operation.

6. **Record Keeping:**

- **Maintenance Logs:** Keep detailed records of all maintenance activities, including dates, tasks performed, and any issues found.
- **Usage Logs:** Maintain logs of the robot's usage to help identify patterns and potential areas for improvement.

7. **Spare Parts Inventory:**

- **Stock Essential Parts:** Keep an inventory of essential spare parts to minimize downtime in case of repairs.
- **Use Genuine Parts:** Always use OEM replacement parts to ensure compatibility and maintain performance standards.