



AstroFarm

Infrastructure Recommendation

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AstroFarm Infrastructure Requirements

This document provides the recommended hardware and system infrastructure for deploying AstroFarm. The recommendations are based on practical experience and customer requirements. It serves as a guide to selecting compatible devices, hubs, and computing systems for efficient device management and testing.

Overview

AstroFarm enables multiple mobile devices to connect to a single contributor machine for device testing, automation, and management. The setup typically includes:

- USB hubs for connecting multiple devices.
- Appropriate computing systems with sufficient processing power, memory, and storage.

A rack cabinet may be used to organize devices, but it is optional depending on the use case and available space.

Setup Considerations

- **Connectivity:** Use high-quality powered USB hubs with sufficient ports and power output to ensure stable connections.
- **Device Compatibility:** The setup is fully compatible with Android devices. For iOS devices, connection issues have been reported when using USB hubs; careful evaluation and testing are recommended before full deployment.
- **System Configuration:** The contributor machine should meet the minimum requirements listed below to handle multiple devices efficiently.
- **Rack Cabinet (Optional):**
 - Adjustable shelves can accommodate different device sizes.
 - Proper ventilation is required to prevent overheating.
 - Cable organizers help manage wiring neatly.
 - Check this [LINK](#) to see the recommendation for Rack Cabinet

USB Hub Recommendations

- 16-port USB hub with individual switches for each port (commonly used by AstroFarm setups).
- Alternative options can be considered based on power delivery and port requirements.
- Check this [LINK](#) to see the recommendation for USB Hub

Recommended System Configuration

Windows / Linux Machines

- **Processor:** Intel Core i5, 1.6 GHz (8th Gen or later)
- **RAM:** 8 GB DDR3
- **Storage:** 256 GB SSD
- **Operating System:** Windows 10 or above / Ubuntu 22.04 or above
- [Raspberry Pi 4 Model B](#)

Apple MacBook

- **Processor:** Apple M2 (8-core) or Intel Core i5, 1.8 GHz (4th Gen or later)
- **RAM:** 16 GB or 8 GB DDR4 / DDR5
- **Storage:** 128 or 256 GB SSD
- **Operating System:** macOS 11 or above
- **Additional Software:** Xcode 10.3 or later

Apple Mac Mini

- **Processor:** Apple M2 with 8-core CPU, 10-core GPU, 16-core Neural Engine
- **Memory:** 16 GB unified memory
- **Storage:** 256 GB SSD (evaluate based on actual usage)
- **Connectivity:** Gigabit Ethernet, Thunderbolt 4 ports, HDMI, USB-A ports, headphone jack

Device Load Guidelines

- Up to 15 Android devices per contributor machine.
 - Up to 05 iOS devices per contributor machine (testing advised before deployment).
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Final Notes

- These recommendations are based on real-world experience and customer feedback but are not official specifications.
- The rack cabinet is optional and can be used if it helps organize devices and manage space effectively.
- Customers should assess their use case requirements and test configurations before final implementation, especially when enrolling iOS devices.