# AOSP and AAOS on Raspberry Pi

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# Thoughts about AOSP on Raspberry Pi

- It would be nice to have a platform for building and testing AOSP on real hardware
- Why Raspberry Pi?
  - Raspberry Pi 4 and 5 are powerful enough to run current versions of AOSP
  - Raspberry Pi is a standard
  - The Raspberry Pi Organization tend to support hardware for a long time
  - Cheap
  - (usually) easy to get hold of

# Hasn’t it been done already?

Sure! Here are some notable projects

- **Glodroid** `https://glodroid.github.io`
- **Android RPi**: `https://github.com/android-rpi`
- **Raspberry Vanilla**: `https://github.com/raspberry-vanilla`
- There is even a Google group: `https://groups.google.com/g/android-rpi`

Each has merit, but none do everything

# Project aims

- Clean AOSP build for tablet and Automotive (and maybe TV?)
- ADB over USB
- Fastboot over USB
- Super partition
- A/B partition slots and working OTA
- Working recovery mode
- GKI kernel
- dm-verity/AVB enabled
- SELinux in enforcing mode
- Passes CTS and VTS

# The AOSP and AAOS Raspberry Pi Project

Based on a fork of Glodroid main branch

Project page: https://aospandaaos.github.io/device-rpi4.html

Manifest: https://github.com/aospandaaos/a3m-rpi-manifest

Device config: https://github.com/aospandaaos/a3m-rpi-device

# Things To Be Done

- Current build is Android 13. Need to port to 14
- Update to Kernel 6.1
- Add support for Raspberry Pi 5
- Move towards SELinux in enforcing mode
- Run CTS and VTS tests
- ? Android Verified Boot ?
- ? Remove unsupported platforms (Orange Pi, Pinephone, etc) ?

# Next steps

- All help, pull requests, and issue reports will be gratefully received