

Raspberry Pi First Weekend Checklist

A finishable plan: boot, secure, update, and ship one useful service (not a pile of unfinished tutorials).

Companions: [Pi hub](#) · [Pi as printer controller](#) · [Local AI on Pi](#) · [ESP32 starter kit](#)

Goal for the weekend

By Sunday night you should have: a Pi that boots headless on your network, updates cleanly, has SSH keys (not password-only on the open internet), and runs **one** useful service you chose in advance.

Pick one track before you buy parts:

- **A — Print brain:** Klipper host path (see site guide)
- **B — Workshop utility:** file share / MQTT broker / Pi-hole-style DNS on a lab VLAN
- **C — Offline helper:** tiny local model or docs search (start small)

BOM (minimum)

- Raspberry Pi 4 (2GB+) or Pi 5 (4GB+ preferred for AI experiments)
- Official or quality PSU (undervoltage ruins weekends)
- Active cooler for Pi 5; case with airflow
- microSD (or NVMe on Pi 5 if you already own the hat)
- Ethernet cable if possible (Wi-Fi is fine; Ethernet is calmer)

Gear notes: [/gear](#)

Saturday morning — image & first boot

- ☐ Flash Raspberry Pi OS Lite (or Desktop if you need a GUI) with Raspberry Pi Imager
- ☐ In Imager: set hostname, enable SSH, set user/password, configure Wi-Fi *or* plan Ethernet
- ☐ Boot; find the Pi on the LAN (`ping hostname.local` or router DHCP list)
- ☐ `ssh user@pi-address`
- ☐ `sudo apt update && sudo apt full-upgrade -y` then reboot if kernel updated

```
hostname  
ip a  
sudo raspi-config    # locale, timezone, expand filesystem if needed
```

Saturday afternoon — harden the basics

- ☐ Change default-ish passwords; create a non-root workflow you actually use
- ☐ Add your SSH public key; test key login
- ☐ Optional: disable password SSH only after key login works
- ☐ `sudo apt install fail2ban` if the Pi will ever see the internet
- ☐ Do **not** port-forward 22 to the world without a plan (use VPN/tailnet later)

```
mkdir -p ~/.ssh && chmod 700 ~/.ssh  
# copy your id_ed25519.pub into ~/.ssh/authorized_keys on the Pi  
chmod 600 ~/.ssh/authorized_keys
```

Sunday — ship one service

Track A — Print brain (outline)

- ☐ Read the site Klipper/Pi guide before installing random scripts
- ☐ Use a known-good install path (KIAUH or current docs)
- ☐ Confirm MCU USB enumerates: `lsusb` / `ls /dev/serial/by-id`
- ☐ Get a web UI loading on the LAN before tuning

Track B — MQTT workshop broker

```
sudo apt install -y mosquitto mosquitto-clients
sudo systemctl enable --now mosquitto
mosquitto_sub -h localhost -t 'lab/#' -v
# other terminal:
mosquitto_pub -h localhost -t 'lab/hello' -m 'pi-first-weekend'
```

- ☐ Subscribe receives the publish
- ☐ Bind to LAN only; add auth before any WAN exposure

Track C — Tiny offline helper

- ☐ Install only one runtime (e.g. a small llama.cpp build or a docs search tool)
- ☐ Prove a single query works offline
- ☐ Stop before “and also Docker and also Home Assistant and also...”

Done checklist

- ☐ Pi survives reboot and comes back on the network
- ☐ You can SSH in without drama
- ☐ One service does one useful thing
- ☐ You wrote down hostname, IP, and what you installed in a note

Next on averyjparker.com

- [Pi 5 as 3D printer controller](#)
- [Pi + ESP32 mesh](#)
- [Local AI on Pi](#)
- [Upcoming posts](#)