# 6‑Week Noise‑Canceling Fan Project Plan

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| Week | Main Build Tasks | Key Skills You'll Learn | Recruiter 'Pop' Items |
| 1 (Jun 16 – 22) | • Public GitHub repo & polished README • Short spec & costed BOM • Core CAD parts (shell, post, base, legs) | • Turn idea into spec & BOM • Basic parametric CAD • Simple Git workflow | ✔ README with badges ✔ Spec + BOM in repo ✔ CAD screenshots |
| 2 (Jun 23 – 29) | • Full 3‑D assembly finished • Strength & vibration sims (FEA) • One tidy GD&T drawing | • Clean assembly in CAD • FEA basics (loads, safety) • GD&T essentials | ✔ One‑page FEA summary ✔ Drawing PDF with GD&T ✔ New images in README |
| 3 (Jun 30 – Jul 6) | • 3‑D‑printed parts & frame assembled • Photo build steps + short guide | • Pro slicer settings • Heat‑set inserts & fasteners • Cable routing & vibration control | ✔ Photo gallery folder ✔ Build guide markdown |
| 4 (Jul 7 – 13) | • Teensy, mic, amp, speaker, fan wired • Fan PWM speed control proven | • MCU pins & PWM • Digital audio (I²S) • Safe power (buck, grounding) | ✔ Wiring/power diagram ✔ Power‑budget sheet |
| 5 (Jul 14 – 20) | • Real‑time FFT running • ≥ 6 dB SPL drop plotted | • FFT & window basics • Test/validation, dB math • Python data plots | ✔ SPL notebook ✔ Two‑page results report |
| 6 (Jul 21 – 27) | • Rubber feet & bottom cover added • 90‑s demo video + quick‑start guide • 5‑slide deck, GitHub release v1.0 | • Demo storytelling & editing • Build docs & changelog • Quantified résumé bullets | ✔ Demo video + GIF ✔ Quick‑start guide ✔ Portfolio deck ✔ Résumé bullet |