

OpenROAD Flow Cheat Sheet

1. **Read Libraries & Design** – read_lef, read_liberty, read_verilog, link_design
2. **Initialize Floorplan** – floorplan, initialize_floorplan
3. **Read Track Info** – read_tracks
4. **Remove Synthesis Buffers** – remove_buffers
5. **Random IO Pin Placement** – place_pins -random
6. **Macro + Global Placement** – macro_placement, global_placement
7. **Insert Tapcells** – tapcell
8. **Generate PDN** – pdngen
9. **Global Placement (Refinement)** – global_placement
10. **Pre-CTS Repair** – repair_design
11. **Tie Cell Repair** – repair_tie_fanout
12. **Detailed Placement** – detailed_placement
13. **CTS** – cts
14. **Timing Repair** – repair_timing
15. **Detailed Placement (Post-CTS)** – detailed_placement
16. **Save Checkpoints** – write_db, write_def
17. **Global Routing** – global_route
18. **Repair Antennas (Post-GRT)** – repair_antennas
19. **Detailed Routing** – detailed_route
20. **Repair Antennas (Post-DRT)** – repair_antennas
21. **Filler Insertion** – filler_placement
22. **Parasitic Extraction** – estimate_parasitics
23. **Final Reports** – report_checks, report_power
24. **Final Metrics** – report_worst_slack, report_tns