

1_key_easy

- Bambu A1mini
 - iPhone
 - set1
 - key-easy-A1mini-1.caf
 - key-easy-A1mini-1.csv
 - set2
 - key-easy-A1mini-2.caf
 - key-easy-A1mini-2.csv
 - set3
 - key-easy-A1mini-3.caf
 - key-easy-A1mini-3.csv
 - teensy
 - 7.10.2024_1
 - key_easy_a1mini-record_1.mp3
 - key_easy_a1mini-vibrations_1.csv
 - 7.10.2024_2
 - key_easy_a1mini-record_2.mp3
 - key_easy_a1mini-vibrations_2.csv
 - 8.1.2024_1
 - key_easy_a1mini-record_3.mp3
 - key_easy_a1mini-vibrations_3.csv
- Bambu P1P
 - Teensy
 - 7.23.2024_1
 - key_easy_p1p-record_1.mp3
 - key_easy_p1p-vibrations_1.csv
 - 7.23.2024_2
 - key_easy_p1p-record_2.mp3
 - key_easy_p1p-vibrations_2.csv
 - 8.1.2024_1
 - key_easy_p1p-record_3.mp3
 - key_easy_p1p-vibrations_3.csv
 - iPhone
 - set1
 - key-easy-P1P-1.caf
 - key-easy-P1P-1.csv
 - set2
 - key-easy-P1P-2.caf
 - key-easy-P1P-2.csv
 - set3
 - key-easy-P1P-3.caf
 - key-easy-P1P-3.csv

2_key_medium

- Bambu A1mini
 - Teensy
 - 7.10.2024_1

- key_medium_a1mini-record_1.mp3
 - key_medium_a1mini-vibrations_1.csv
 - [7.10.2024_2](#)
 - key_medium_a1mini-record_2.mp3
 - key_medium_a1mini-vibrations_2.csv
 - [8.1.2024_1](#)
 - key_medium_a1mini-record_3.mp3
 - key_medium_a1mini-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - key-medium-A1mini-1.caf
 - key-medium-A1mini-1.csv
 - [set2](#)
 - key-medium-A1mini-2.caf
 - key-medium-A1mini-2.csv
 - [set3](#)
 - key-medium-A1mini-3.caf
 - key-medium-A1mini-3.csv
- [Bambu_P1P](#)
 - [Teensy](#)
 - [7.23.2024_1](#)
 - key_medium_p1p-record_1.mp3
 - key_medium_p1p-vibrations_1.csv
 - [7.23.2024_2](#)
 - key_medium_p1p-record_2.mp3
 - key_medium_p1p-vibrations_2.csv
 - [8.1.2024_1](#)
 - key_medium_p1p-record_3.mp3
 - key_medium_p1p-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - key-medium-P1P-1.caf
 - key-medium-P1P-1.csv
 - [set2](#)
 - key-medium-P1P-2.caf
 - key-medium-P1P-2.csv
 - [set3](#)
 - key-medium-P1P-3.caf
 - key-medium-P1P-3.csv

[3_key_hard](#)

- [Bambu_A1mini](#)
 - [Teensy](#)
 - [7.11.2024_1](#)
 - key_hard_a1mini-record_1.mp3
 - key_hard_a1mini-vibrations_1.csv
 - [7.11.2024_2](#)

- key_hard_a1mini-record_2.mp3
 - key_hard_a1mini-vibrations_2.csv
 - [8.1.2024_1](#)
 - key_hard_a1mini-record_3.mp3
 - key_hard_a1mini-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - key-hard-A1mini-1.caf
 - key-hard-A1mini-1.csv
 - [set2](#)
 - key-hard-A1mini-2.caf
 - key-hard-A1mini-2.csv
 - [set3](#)
 - key-hard-A1mini-3.caf
 - key-hard-A1mini-3.csv
- [Bambu_P1P](#)
 - [Teensy](#)
 - [7.23.2024_1](#)
 - key_hard_p1p-record_1.mp3
 - key_hard_p1p-vibrations_1.csv
 - [7.23.2024_2](#)
 - key_hard_p1p-record_2.mp3
 - key_hard_p1p-vibrations_2.csv
 - [8.1.2024_1](#)
 - key_hard_p1p-record_3.mp3
 - key_hard_p1p-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - key-hard-P1P-1.caf
 - key-hard-P1P-1.csv
 - [set2](#)
 - key-hard-P1P-2.caf
 - key-hard-P1P-2.csv
 - [set3](#)
 - key-hard-P1P-3.caf
 - key-hard-P1P-3.csv

[4_key_steps](#)

- [Bambu_A1mini](#)
 - [Teensy](#)
 - [7.11.2024_1](#)
 - key_steps_a1mini-record_1.mp3
 - key_steps_a1mini-vibrations_1.csv
 - [7.11.2024_2](#)
 - key_steps_a1mini-record_2.mp3
 - key_steps_a1mini-vibrations_2.csv
 - [8.1.2024_1](#)

- key_steps_a1mini-record_3.mp3
 - key_steps_a1mini-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - key-steps-A1mini-1.caf
 - key-steps-A1mini-1.csv
 - [set2](#)
 - key-steps-A1mini-2.caf
 - key-steps-A1mini-2.csv
 - [set3](#)
 -
 - key-steps-A1mini-3.caf
 - key-steps-A1mini-3.csv
- [Bambu_P1P](#)
 - [Teensy](#)
 - [7.24.2024_1](#)
 - key_steps_p1p-record_1.mp3
 - key_steps_p1p-vibrations_1.csv
 - [7.24.2024_2](#)
 - key_steps_p1p-record_2.mp3
 - key_steps_p1p-vibrations_2.csv
 - [8.1.2024_1](#)
 - key_steps_p1p-record_3.mp3
 - key_steps_p1p-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - key-steps-P1P-1.caf
 - key-steps-P1P-1.csv
 - [set2](#)
 - key-steps-P1P-2.caf
 - key-steps-P1P-2.csv
 - [set3](#)
 - key-steps-P1P-3.caf
 - key-steps-P1P-3.csv

[5_2keys](#)

- [Bambu_A1mini](#)
 - [Teensy](#)
 - [7.11.2024_1](#)
 - 2keys_a1mini-record_1.mp3
 - 2keys_a1mini-vibrations_1.csv
 - [7.28.2024_1](#)
 - 2keys_a1mini-record_2.mp3
 - 2keys_a1mini-vibrations_2.csv
 - [8.1.2024_1](#)
 - 2keys_a1mini-record_3.mp3
 - 2keys_a1mini-vibrations_3.csv

- [iPhone](#)
 - [set1](#)
 - 2keys-A1mini-1.caf
 - 2keys-A1mini-1.csv
 - [set2](#)
 - 2keys-A1mini-2.caf
 - 2keys-A1mini-2.csv
 - [set3](#)
 - 2keys-A1mini-3.caf
 - 2keys-A1mini-3.csv
- [Bambu P1P](#)
 - [Teensy](#)
 - [7.24.2024_1](#)
 - 2keys_p1p-record_1.mp3
 - 2keys_p1p-vibrations_1.csv
 - [7.24.2024_2](#)
 - 2keys_p1p-record_2.mp3
 - 2keys_p1p-vibrations_2.csv
 - [8.1.2024_1](#)
 - 2keys_p1p-record_3.mp3
 - 2keys_p1p-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - 2keys-P1P-1.caf
 - 2keys-P1P-1.csv
 - [set2](#)
 - 2keys-P1P-2.caf
 - 2keys-P1P-2.csv
 - [set3](#)
 - 2keys-P1P-3.caf
 - 2keys-P1P-3.csv

6 Autodesk kickstarter standard

- [Bambu A1mini](#)
 - [Teensy](#)
 - [7.12.2024_1](#)
 - ksr_fdm_test_a1mini-record_1.mp3
 - ksr_fdm_test_a1mini-vibrations_1.csv
 - [7.12.2024_2](#)
 - ksr_fdm_test_a1mini-record_2.mp3
 - ksr_fdm_test_a1mini-vibrations_2.csv
 - [8.4.2024_1](#)
 - ksr_fdm_test_a1mini-record_3.mp3
 - ksr_fdm_test_a1mini-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - ksr-fdm-test-A1mini-1.caf

- ksr-fdm-test-A1mini-1.csv
 - [set2](#)
 - ksr-fdm-test-A1mini-2.caf
 - ksr-fdm-test-A1mini-2.csv
 - [set3](#)
 - ksr-fdm-test-A1mini-3.caf
 - ksr-fdm-test-A1mini-3.csv
- [Bambu_P1P](#)
 - [Teensy](#)
 - [7.24.2024_1](#)
 - ksr_fdm_test_p1p-record_1.mp3
 - ksr_fdm_test_p1p-vibrations_1.csv
 - [7.25.2024_1](#)
 - ksr_fdm_test_p1p-record_2.mp3
 - ksr_fdm_test_p1p-vibrations_2.csv
 - [7.31.2024_1](#)
 - ksr_fdm_test_p1p-record_3.mp3
 - ksr_fdm_test_p1p-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - ksr-fdm-test-P1P-1.caf
 - ksr-fdm-test-P1P-1.csv
 - [set2](#)
 - ksr-fdm-test-P1P-2.caf
 - ksr-fdm-test-P1P-2.csv
 - [set3](#)
 - ksr-fdm-test-P1P-3.caf
 - ksr-fdm-test-P1P-3.csv

[7_NIST_additive_test](#)

- [Bambu_A1mini](#)
 - [Teensy](#)
 - [7.28.2024_1](#)
 - nist_std_a1mini-record_1.mp3
 - nist_std_a1mini-vibrations_1.csv
 - [7.28.2024_2](#)
 - nist_std_a1mini-record_2.mp3
 - nist_std_a1mini-vibrations_2.csv
 - [8.3.2024_1](#)
 - nist_std_a1mini-record_3.mp3
 - nist_std_a1mini-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - nist-std-A1mini-1.caf
 - nist-std-A1mini-1.csv
 - [set2](#)
 - nist-std-A1mini-2.caf

- nist-std-A1mini-2.csv
 - [set3](#)
 - nist-std-A1mini-3.caf
 - nist-std-A1mini-3.csv
- [Bambu_P1P](#)
 - [Teensy](#)
 - [7.25.2024_1](#)
 - nist_std_p1p-record_1.mp3
 - nist_std_p1p-vibrations_1.csv
 - [7.26.2024_1](#)
 - nist_std_p1p-record_2.mp3
 - nist_std_p1p-vibrations_2.csv
 - [7.30.2024_1](#)
 - nist_std_p1p-record_3.mp3
 - nist_std_p1p-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - nist-std-P1P-1.caf
 - nist-std-P1P-1.csv
 - [set2](#)
 - nist-std-P1P-2.caf
 - nist-std-P1P-2.csv
 - [set3](#)
 - nist-std-P1P-3.caf
 - nist-std-P1P-3.csv

[8_ASTM](#)

- [Bambu_A1mini](#)
 - [Teensy](#)
 - [7.29.2024_1](#)
 - astm_a1mini-record_1.mp3
 - astm_a1mini-vibrations_1.csv
 - [7.29.2024_2](#)
 - astm_a1mini-record_2.mp3
 - astm_a1mini-vibrations_2.csv
 - [8.3.2024_1](#)
 - astm_a1mini-record_3.mp3
 - astm_a1mini-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - astm-A1mini-1.caf
 - astm-A1mini-1.csv
 - [set2](#)
 - astm-A1mini-2.caf
 - astm-A1mini-2.csv
 - [set3](#)
 - astm-A1mini-3.caf

- astm-A1mini-3.csv
- [Bambu P1P](#)
 - [Teensy](#)
 - [7.25.2024_1](#)
 - astm_p1p-record_1.mp3
 - astm_p1p-vibrations_1.csv
 - [7.26.2024_1](#)
 - astm_p1p-record_2.mp3
 - astm_p1p-vibrations_2.csv
 - [7.30.2024_1](#)
 - astm_p1p-record_3.mp3
 - astm_p1p-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - astm-P1P-1.caf
 - astm-P1P-1.csv
 - [set2](#)
 - astm-P1P-2.caf
 - astm-P1P-2.csv
 - [set3](#)
 - astm-P1P-3.caf
 - astm-P1P-3.csv

9 All_in_1

- [Bambu A1mini](#)
 - [iPhone](#)
 - [set1](#)
 - All-in-one-A1mini-1.caf
 - All-in-one-A1mini-1.csv
 - [set2](#)
 - All-in-one-A1mini-2.caf
 - All-in-one-A1mini-2.csv
 - [set3](#)
 - All-in-one-A1mini-3.caf
 - All-in-one-A1mini-3.csv
 - [teensy](#)
 - [7.27.2024_1](#)
 - All_in_one_a1mini-record_1.mp3
 - All_in_one_a1mini-vibrations_1.csv
 - [7.27.2024_2](#)
 - All_in_one_a1mini-record_2.mp3
 - All_in_one_a1mini-vibrations_2.csv
 - [8.2.2024_1](#)
 - All_in_one_a1mini-record_3.mp3
 - All_in_one_a1mini-vibrations_3.csv
- [Bambu P1P](#)
 - [Teensy](#)

- [7.26.2024_1](#)
 - All_in_one_p1p-record_1.mp3
 - All_in_one_p1p-vibrations_1.csv
- [7.27.2024_1](#)
 - All_in_one_p1p-record_2.mp3
 - All_in_one_p1p-vibrations_2.csv
- [7.30.2024_1](#)
 - All_in_one_p1p-record_3.mp3
 - All_in_one_p1p-vibrations_3.csv
- [iPhone](#)
 - [set1](#)
 - All-in-one-P1P-1.caf
 - All-in-one-P1P-1.csv
 - [set2](#)
 - All-in-one-P1P-2.caf
 - All-in-one-P1P-2.csv
 - [set3](#)
 - All-in-one-P1P-3.caf
 - All-in-one-P1P-3.csv

[10_Triple_Helix](#)

- [Bambu_A1mini](#)
 - [Teensy](#)
 - [8.2.2024_1](#)
 - triple_helix_a1mini-record_1.mp3
 - triple_helix_a1mini-vibrations_1.csv
 - [8.2.2024_2](#)
 - triple_helix_a1mini-record_2.mp3
 - triple_helix_a1mini-vibrations_2.csv
 - [8.4.2024_1](#)
 - triple_helix_a1mini-record_3.mp3
 - triple_helix_a1mini-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - triple-helix-A1mini-1.caf
 - triple-helix-A1mini-1.csv
 - [set2](#)
 - triple-helix-A1mini-2.caf
 - triple-helix-A1mini-2.csv
 - [set3](#)
 - triple-helix-A1mini-3.caf
 - triple-helix-A1mini-3.csv
- [Bambu_P1P](#)
 - [Teensy](#)
 - [7.29.2024_1](#)
 - triple_helix_p1p-record_1.mp3
 - triple_helix_p1p-vibrations_1.csv

- [7.29.2024_2](#)
 - triple_helix_p1p-record_2.mp3
 - triple_helix_p1p-vibrations_2.csv
- [7.31.2024_1](#)
 - triple_helix_p1p-record_3.mp3
 - triple_helix_p1p-vibrations_3.csv
- [iPhone](#)
 - [set1](#)
 - triple-helix-P1P-1.caf
 - triple-helix-P1P-1.csv
 - [set2](#)
 - triple-helix-P1P-2.caf
 - triple-helix-P1P-2.csv
 - [set3](#)
 - triple-helix-P1P-3.caf
 - triple-helix-P1P-3.csv

[11_CaliCat](#)

- [Bambu_A1mini](#)
 - [Teensy](#)
 - [7.11.2024_1](#)
 - CaliCat_a1mini-record_1.mp3
 - CaliCat_a1mini-vibrations_1.csv
 - [7.11.2024_2](#)
 - CaliCat_a1mini-record_2.mp3
 - CaliCat_a1mini-vibrations_2.csv
 - [8.2.2024_1](#)
 - CaliCat_a1mini-record_3.mp3
 - CaliCat_a1mini-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - CaliCat-A1mini-1.caf
 - CaliCat-A1mini-1.csv
 - [set2](#)
 - CaliCat-A1mini-2.caf
 - CaliCat-A1mini-2.csv
 - [set3](#)
 - Calicat-A1mini-3.caf
 - Calicat-A1mini-3.csv
- [Bambu_P1P](#)
 - [Teensy](#)
 - [7.24.2024_1](#)
 - CaliCat_p1p-record_1.mp3
 - CaliCat_p1p-vibrations_1.csv
 - [7.24.2024_2](#)
 - CaliCat_p1p-record_2.mp3
 - CaliCat_p1p-vibrations_2.csv

- [7.31.2024_1](#)
 - CaliCat_p1p-record_3.mp3
 - CaliCat_p1p-vibrations_3.csv
- [iPhone](#)
 - [set1](#)
 - CaliCat-P1P-1.caf
 - CaliCat-P1P-1.csv
 - [set2](#)
 - CaliCat-P1P-2.caf
 - CaliCat-P1P-2.csv
 - [set3](#)
 - CaliCat-P1P-3.caf
 - CaliCat-P1P-3.csv

[12_retraction_test](#)

- [Bambu_A1mini](#)
 - [Teensy](#)
 - [7.11.2024_1](#)
 - retraction_test_a1mini-record_1.mp3
 - retraction_test_a1mini-vibrations_1.csv
 - [7.11.2024_2](#)
 - retraction_test_a1mini-record_2.mp3
 - retraction_test_a1mini-vibrations_2.csv
 - [8.2.2024_1](#)
 - retraction_test_a1mini-record_3.mp3
 - retraction_test_a1mini-vibrations_3.csv
 - [iPhone](#)
 - [set1](#)
 - retraction-test-A1mini-1.caf
 - retraction-test-A1mini-1.csv
 - [set2](#)
 - retraction-test-A1mini-2.caf
 - retraction-test-A1mini-2.csv
 - [set3](#)
 - retraction-test-A1mini-3.caf
 - retraction-test-A1mini-3.csv
- [Bambu_P1P](#)
 - [Teensy](#)
 - [7.24.2024_1](#)
 - retraction_test_p1p-record_1.mp3
 - retraction_test_p1p-vibrations_1.csv
 - [7.24.2024_2](#)
 - retraction_test_p1p-record_2.mp3
 - retraction_test_p1p-vibrations_2.csv
 - [8.1.2024](#)
 - retraction_test_p1p-record_3.mp3
 - retraction_test_p1p-vibrations_3.csv

- [iPhone](#)
 - [set1](#)
 - retraction-test-P1P-1.caf
 - retraction-test-P1P-1.csv
 - [set2](#)
 - retraction-test-P1P-2.caf
 - retraction-test-P1P-2.csv
 - [set3](#)
 - retraction-test-P1P-3.caf
 - retraction-test-P1P-3.csv

[Artifacts](#)

- [A1mini_prints](#)
 - 1_key_easy_A1.3mf
 - 2_key_medium_A1.3mf
 - 3_key_hard_A1.3mf
 - 4_key_steps_A1.3mf
 - 5_2keys_A1.3mf
 - 6_ksr_fdmtest_v4_A1_2h48m.3mf
 - 7_NIST_Test_Artifact_A1_2h27m.3mf
 - 8_ASTM_PLA_3h15m.3mf
 - 9_3D_Printer_test_fixed_stl_3rd_gen_PLA_2h56m.3mf
 - 10_Triple_Helix_A1_1h41m.3mf
 - 11_calicat_PLA_A1_37m16s.3mf
 - 12_retraction_test_A1_15m36s.3mf
- [P1P_prints](#)
 - 1_key_easy_P1P_10m56s.gcode
 - 2_key_medium_P1P_10m56s.gcode
 - 3_key_hard_P1P_10m54s.gcode
 - 4_key_steps_P1P_10m54s.gcode
 - 5_2keys_P1P_15m33s.gcode
 - 6_ksr_fdmtest_v4_P1P_2h32m.gcode
 - 7_NIST Test Artifact online_P1P_2h15m.gcode
 - 8_ASTM_P1P_3h9m.gcode
 - 9_3D_Printer_test_fixed_stl_3rd_gen_P1P_2h54m.gcode
 - 10_tri-helix-tube-105mm_PLA_1h28m.gcode
 - 11_calicat_PLA_P1P_39m2s.gcode
 - 12_retraction_test_P1P_12m59s.gcode
- [STL_Files](#)
 - 1_key_easy.stl
 - 2_key_medium.stl
 - 3_key_hard.stl
 - 4_key_steps.stl
 - 5_2keys_.stl
 - 6_ksr_fdmtest_v4.stl
 - 7_NIST Test Artifact online.STL
 - 8_parts_of_ASTM52902.stl

- 9_3D_Printer_test_fixed_stl_3rd_gen.STL
- 10_Triple_Helix.stl
- 11_calicat.stl
- 12_four_square_cons.stl

Noise Recordings

- A1_mini_fan_noise
 - A1mini-fan-noise-iPhone.caf
 - A1mini-fan-noise-iPhone.csv
 - A1mini_fan_noiseTeensy.mp3
 - A1mini_fan_noise_Teensy.csv
- Background_noise
 - Background-noise-iPhone.caf
 - Background-noise-iPhone.csv
 - backrgoud_noise_Teensy.csv
 - backrgoud_noise_Teensy.mp3
- P1P_fan_noise
 - Fan-noise-P1P-iPhone.caf
 - Fan-noise-P1P-iPhone.csv
 - P1P_fan_noise_Teensy.csv
 - P1P_fan_noise_Teensy.mp3

Printing Videos

- Bambu_A1mini_printing_medium_key.mp4
- Bambu_P1P_printing_medium_key.mp4