3D Print Guide

For the 3D print service. All files are in the folder **04 3D Print Ready** (one sub-folder per region). **PRINT_LIST.csv** gives every part: quantity, material, colour, plate and notes.

What to print

Region	Printed pieces	Notes
LEGS	44	load parts: 100 % infill, 4 walls (incl. L/R_ANKLE_OUTER)
ARMS	18	load parts: 100 % infill, 4 walls
HANDS_V6	116	small parts and pins: 100 % infill, print slowly
TORSO	6	TORSO_CHASSIS lying ON ITS BACK (required); button cap prints standing on its plunger end
HEAD	8	shells: 20-30 % infill
PLAYABLES	27	balls, pins, markers
Total	219	exact list: PRINT_LIST.csv (qty column)

Materials and colours (THARVIN mascot colours v2, 21 Oct)

Material	Used for
PETG	most parts - colour per part in PRINT_LIST (mascot colours: royal blue body / hips / shoes, orange shoulders and legs, white arms and knees, light blue hands, cyan head, dark screen face plate, silver pins)
PETG silver	pins, ear tabs, nose ring and other silver parts
TPU 95A	soles and tendon springs
PLA+	only the rows marked PLA+

Print settings

Setting	Value
Nozzle / layer	0.4 mm / 0.2 mm
Load parts (legs, hips, ankles, shoulders, arms, torso chassis)	100 % infill, 4 walls, 5 top/bottom layers
Covers, shells, head, playables	20-30 % infill, 3 walls
Hand parts, small pins	100 % infill, 3 walls, slow
Supports	only where PRINT_LIST says so (tree supports for the torso chassis)

Must do

1. **TORSO_CHASSIS**: print lying on its BACK (back face down) - this is required for strength.
2. **ANKLE_CROSS**: print with the AR web face on the bed (see PRINT_LIST note).
3. L_ and R_ parts are mirror images: print both, keep them in separate labelled bags.
4. Bag and label every part with its file name.

Do NOT print

- Plate P01 (TORSO_BUCK_PLATE, BUCK_TAB_BLOCK) - aluminium, cut by hand from the 2 mm plate.

- Plate P27 silicone grip pads - cut from 1 mm silicone sheet.
- L/R_ANKLE_INSERT - aluminium, cut from 20 x 3 flat.
- Rows with qty 0 or marked DO NOT PRINT in PRINT_LIST (for example R6_FT_SPOOL / R6_FT_TACKLE).
- Anything in a folder named _OLD_... and any file not listed in PRINT_LIST.

Quality check

- No warping, no layer splits on load parts.
- Holes and pockets clean (remove supports and stringing).
- Count against PRINT_LIST before delivery.

All files are confidential (see the signed NDA). Delete them after the job.