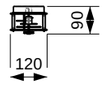
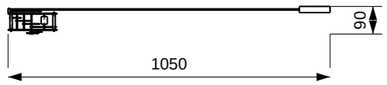
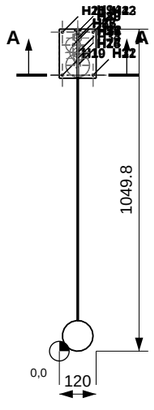
FRONT VIEW



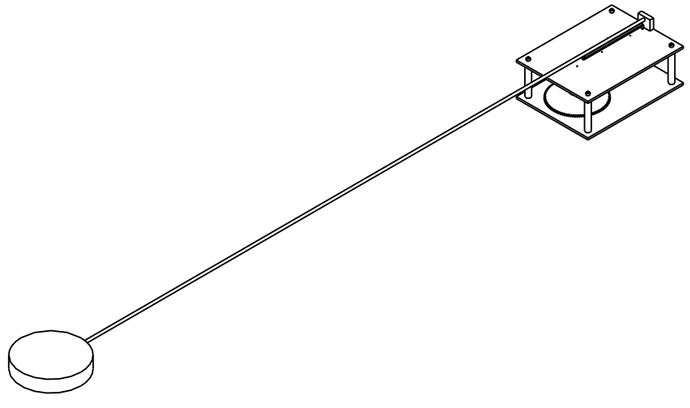
LEFT SIDE VIEW



TOP VIEW



ISOMETRIC



DRIVING DIMENSIONS

Parameter	Value	Unit
Plate width	120	mm
Plate height	160	mm
Plate thickness	3	mm
Pillar length	50	mm
Pillar d	8	mm
Pillar dx	50	mm
Pillar dy	70	mm
Train module	0.8	mm
Module hour	0.768	mm
Great wheel	96	teeth
Centre wheel	64	teeth
Third wheel	60	teeth
Train pinions	8	teeth
Z cannon	12	mm
Z minute	36	mm
Z mpinion	10	mm
Z hour	40	mm
Escape teeth	30	teeth

PARTS LIST

Pos	Part	Qty	Standard / mass
1	front_plate	1	451.0 g
2	back_plate	1	451.0 g
3	pillar_0	1	19.3 g
4	Socket head cap screw M3x8	8	screw_front
5	pillar_1	1	19.3 g
6	pillar_2	1	19.3 g
7	pillar_3	1	19.3 g
8	arbor_great	1	2.9 g
9	great_wheel	1	73.2 g
10	weight_drum	1	60.3 g
11	arbor_centre	1	3.6 g
12	centre_pinion	1	0.7 g
13	centre_wheel	1	32.2 g
14	arbor_third	1	2.9 g

NOTES

1. Gear great/centre: face width 2 = 2.5 × module (usual range 8-12 × m)
2. Gear centre/third: face width 2 = 2.5 × module (usual range 8-12 × m)
3. Gear third/escape: face width 2 = 2.5 × module (usual range 8-12 × m)
4. With one module for all motion works, the 12/36 pair (a=19.2) and the 10/40 pair (a=20.0) cannot share a centre distance. The hour pair is therefore set to m=0.768; a profile shift or different tooth counts would avoid this.
5. 8-leaf involute pinions undercut heavily. Real clocks use cycloidal leaves, so the involute form here is an approximation.
6. The anchor sits close to the plate top. Check pallet depthing on assembly.
7. The pendulum needs a rating nut for fine adjustment, which is not modelled.

TITLE

Weight-Driven Seconds Pendulum Clock Movemen

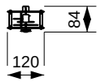
LUXXO

DRAWN BY Luxxo AI design engineer	DATE 2026-11-14	PROJECTION ISO first angle [|O] -O
MATERIAL Steel (S235)	GENERAL TOLERANCE ISO 2768-m ± 0.2 mm	MASS (calc.) 2.58 kg
SCALE 1 : 20	SHEET 1 / 2 A3	DRAWING No. LX-38FE33-v1

Dimensions in mm · unspecified tolerances ISO 2768-m · surface Ra 3.2 unless noted · break sharp edges 0.5 × 45° · machining

Hidden lines omitted · not to scale

SECTION A-A



A-A (1 : 20) cutting plane y = -70 mm, viewed from the front

HOLE TABLE (X / Y from datum 0,0 of the view F / S / T on sheet 1)

Tag	Ø	X	Y	Depth	View	Thread / fit / note
H1	Ø3.4	10	899.8	THRU	T	M4-6H, tap drill Ø3.3
H2	Ø3.4	10	1039.8	THRU	T	M4-6H, tap drill Ø3.3
H3	Ø3.4	110	899.8	THRU	T	M4-6H, tap drill Ø3.3
H4	Ø3.4	110	1039.8	THRU	T	M4-6H, tap drill Ø3.3
H5	Ø3	60	973.4	THRU	T	Ø2.9 H13 for M2.5 (ISO 273 medium)
H6	Ø1.5	45	998	THRU	T	M2-6H, tap drill Ø1.6
H7	Ø1.5	60	931.8	THRU	T	M2-6H, tap drill Ø1.6
H8	Ø1.5	60	1020.7	THRU	T	M2-6H, tap drill Ø1.6
H9	Ø1.5	60	1041.2	THRU	T	M2-6H, tap drill Ø1.6
H10	Ø3.4	10	899.8	THRU	T	M4-6H, tap drill Ø3.3
H11	Ø3.4	10	1039.8	THRU	T	M4-6H, tap drill Ø3.3
H12	Ø3.4	110	899.8	THRU	T	M4-6H, tap drill Ø3.3
H13	Ø3.4	110	1039.8	THRU	T	M4-6H, tap drill Ø3.3
H14	Ø3	60	1041.2	THRU	T	Ø2.9 H13 for M2.5 (ISO 273 medium)
H15	Ø1.5	45	998	THRU	T	M2-6H, tap drill Ø1.6
H16	Ø1.5	60	931.8	THRU	T	M2-6H, tap drill Ø1.6
H17	Ø1.5	60	973.4	THRU	T	M2-6H, tap drill Ø1.6
H18	Ø1.5	60	1020.7	THRU	T	M2-6H, tap drill Ø1.6
H19	Ø2.5	10	899.8	THRU	T	M3-6H, tap drill Ø2.5
H20	Ø2.5	10	1039.8	THRU	T	M3-6H, tap drill Ø2.5

+ 14 more holes - full list in the app

FITS & TOLERANCES (ISO 286)

Feature	Size	Max / min	Fit
pivot	Ø1.5 f7	1.494 / 1.484	H7/f7 clearance

ENGINEERING CHECKS (simplified hand calculations)

OK great/centre: m0.8 z96 b2: Ft = 10 N, tooth root σF = 14.3 MPa (allow ~120), contact σH = 443 MPa (limit ~470)

OK centre/third: m0.8 z64 b2: Ft = 1 N, tooth root σF = 1.9 MPa (allow ~120), contact σH = 161 MPa (limit ~470)

OK third/escape: m0.8 z60 b2: Ft = 0 N, tooth root σF = 0.2 MPa (allow ~120), contact σH = 58 MPa (limit ~470)

Flat patterns: 9 DXF files (10 pcs) for laser cutting - download in the app.

Section hatching per ISO 128-50 · hole coordinates from the datum symbol · fits ISO 286-2 · weld symbols ISO 2553 · weld preparation EN ISO 9692-1

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