01 / Install the full journey

T2/S4 → T6/S3 → T2/S4 / Full journey / Same furniture in B′72 and B72

W1 lower-exposure candidate: T2/S4 to T6/S3 and back. Chair A is T2/S4; chair B is T6/S3. B72 is a layout name. This is a formative movement pilot with no scent release and no physical results yet.

Choose and record the scope

The full-journey reference is the complete 18,000 x 10,000 mm main-room layout: 15 tables, 72 chairs, all four internal boundary segments, end glazing and other fixed obstructions in the supplied model. This is not a minimum space allowance; provide access and observer space outside it. The forecourt is not traversed. Detail crops are not standalone cleared stations. If only an endpoint is built, mark PARTIAL, inventory omissions/supports and record only the tested local action; do not sum station times or call it a round trip.

Bring and label

Use the six A3 sheets, A0 chair template, millimetre DXF and CSV, one three-page record per run, survey tape or laser, square, removable reference marks, labels, stopwatch and pen. Assign a facilitator and a separate observer. Label activity tables T1-T6, front tables F1-F6 and back tables Bk1-Bk3; seat numbering is shown on the plans. Use existing stable furniture and stable boundary proxies. This is a setting-out kit, not a fabrication drawing.

Check print and control

Print at 100% with Fit/Shrink off. On A3 sheets 1, 2 and 6 the calibration L has 50 mm legs; on detail sheet 3 a 1000 mm grid interval prints at 40 mm; the two A0 bars are 100 mm. Check the A0 bold rail length, 455 mm. Set world O=(0,0), +X east and +Y north. Establish endpoints (0,0), (18000,0), (0,10000), (18000,10000); diagonal=20591.3 mm. Check local 1000 x 1000 mm right-angle control at each end, diagonal=1414.2 mm. Record long baseline/diagonal closure error separately from local offsets. Use a suitable survey method; do not hide drift by resetting the datum.

Place furniture and chair marks

Use the shared furniture schedule and exact CSV; table angles are the long axis, chair angles the facing direction, both counterclockwise from world +X. Install all 72 positions, including unoccupied chairs along the route. T6 already lies 650 mm west and T5 100 mm west of the older layout; the schedule already includes these moves. Do not move them again. Mark A and B at rest and 300 mm back along their own facing axes. These are observer references, not required human pull distances.

Install the matching boundaries

Use sheet 5 and the DXF outlines for all four straight B′72 or curved B72 segments; height 1100 mm and thickness 140 mm. Do not replace curves with a chord. Reproduce the end-glass inner face at world X=17988 mm and other fixed obstructions at their supplied footprints. The reference end glass is 3000 mm high; record actual proxy height and support feet. Keep supports out of the movement space. The DXF also retains forecourt/facade context; no forecourt trial is claimed.

Survey before admitting the mover

Measure real table/chair footprints, floor-to-seat and back heights, weight/glides, floor and boundary supports. Model rail Z20 is not a support specification: do not raise real chairs to reproduce it. Aim for +/-5 mm local placement/reset, not a comfort allowance. Record maximum local error, angle error and survey closure. Correct placement errors; unavoidable physical differences require a shared proxy revision in both layouts. Photograph/sketch the empty setup. Do not tape the route or coach a side; retain the route map for the observer only.

02 / Match the two layout blocks

T2/S4 → T6/S3 → T2/S4 / Full journey / Same furniture in B′72 and B72

Keep furniture identities and positions, people, clothing/footwear, floor, contents, lighting, briefing, hold and rest rules identical. Exchange only the four boundary plan shapes. Record unavoidable differences; unmatched trials are not a matched comparison.

Base condition E

Mover starts at A=T2/S4. The same three peers occupy T2/S1, S2 and S6. T2/S3 and S5 are empty. All T6 seats start empty, with B=T6/S3 reserved. All other chairs remain empty, at rest. Keep A reserved while the mover is away; 72 installed seats do not mean 72 independently available seats during this move.

Optional occupied condition O

Keep the three T2 peers. Add the same five people at T6/S1, S2, S4, S5 and S6; T6/S3 stays free. This is a separate condition. Do not substitute bags or mannequins within a paired comparison. Added occupants elsewhere along the route are an untested condition requiring a new label.

Counterbalance layout order

Odd participant IDs: B′72 then B72. Even IDs: B72 then B′72. Finish one block before changing all four boundary segments. Re-survey after the change. Use the same person in both layouts. A single participant cannot resolve order effects; do not interpret a difference as a proven curvature effect.

Run the same block

In each layout: PR = one unscored base practice; E1 and E2 = two recorded base cycles. Optional O1 = one occupied-target cycle only if base runs leave no unresolved contact, instability or discomfort and the participant wants to continue. Match O1 in both layouts or report it separately. Use IDs such as P01-Bp-E1; Bp means B′72. Keep a record for practice too.

Rest after every cycle

Provide at least two minutes after every run, including practice, and after exchanging layouts. Extend on request; record actual rest and fatigue before/after each run. Do not insist on finishing the block. The 10-second seated hold, two-minute rest and run counts are practical settings, not validated fatigue or comfort thresholds. Base precedes occupied, so occupancy effects are confounded by order.

Brief without showing the choreography

Confirm voluntary participation and the right to stop; obtain separate consent for video. Say: 'Go to the marked seat at the far table, sit and settle. Return to your own seat when I say return. Leave your own chair pulled out while away. Put the destination chair back after leaving it. Move as you normally would; ask for help or stop whenever you need.' Do not show the digital path, preferred hand, body angle or step length before natural trials. Peers use a normal working posture and keep chairs fixed; record spontaneous movement or assistance.

Preserve a clean comparison

Keep revisions, practice, partial builds, retries, assistance, stopped attempts and coached follow-ups separate. If a furniture change is needed, apply it identically to both layouts with 72 seats retained, revise the geometry and documents, and repeat both conditions under the new revision.

03 / Observe the complete chair sequence

T2/S4 → T6/S3 → T2/S4 / Full journey / Same furniture in B'72 and B72

The digital sequence below is an observer reference, not a movement instruction. A natural shortcut, different side, grip or pull distance is a finding. A remains pulled out while the mover is away.

Start and time

Start with the mover seated at A and both chairs at rest. Say Go and start the timer. Note time of leaving A, reaching B, settling at B, return cue, departure from B and final finish. Give a 10-second hold after settling, then say Return. Stop when the mover is seated at A and both chairs restored, or declares the attempt finished. A stopped time is not a completed-cycle time. Total includes chair handling and hold; it is not walking speed.

1. A out while seated

Reference: slide A and seated body back 300 mm. Record actual pull and whether the person stands first.

2. Stand, leave A, travel to B

Keep A pulled out and reserved. Record exit side, twisting, actual route, pauses and any displaced chairs. Use the observer plan to sketch outward travel; do not follow behind within the movement space.

3. Pull B from standing

Reference: approach the backrest and pull B back 300 mm. Record first pull, side, hand/grip and the smallest observed chair-to-end-wall horizontal X gap at this state. Mark not measured if an unobtrusive measurement is unavailable; do not interrupt the route to insert a tape.

4. Enter B, sit, move B in, hold

Record the actual sequence and assistance. Reference: sit with B pulled out, slide in while seated, settle, then hold for 10 seconds.

5. Pull B a second time, rise and leave

Reference: move B back while seated, then rise and exit. Record second pull separately, contact, side and the horizontal X gap. Do not assume the first pull or gap repeats.

6. Restore B from standing

Reference: use the backrest to return B to rest. A must still be pulled out. Record help, alternate grip or incomplete reset.

7. Return to A and sit

Sketch the return route separately. Record re-entry side, pauses and any change to A made while the mover was away.

8. Move A in and check finish

Reference: restore A while seated. Record the largest displacement of any marked rail/foot point for each chair, including rotation, before the crew resets. Use +/-5 mm as an operational reset target only.

Reference limits

The checked path uses right-side exit at A and right-side entry at B, relative to facing each table, and a right-hand rear grip at B. Do not coach these during natural trials. The old 75-degree/10 mm solution is superseded. Any coached demonstration must follow all natural trials and carry its own record; never pool it with E1/E2.

04 / Stop, reset and compare

T2/S4 → T6/S3 → T2/S4 / Full journey / Same furniture in B′72 and B72

This kit tests a physical movement task. It does not measure scent reduction, duct performance, comfort across body sizes or general access. No human test is represented by the existing digital pass.

Stop and record

Stop on request, discomfort, loss of balance, a shifting support or unexpected body contact with furniture, boundaries or another person. Ordinary seat contact and intentional chair grip are expected. Record any unexpected brush as contact and stop under this conservative pilot rule. The facilitator may assist to end the run. Record body part, object, stage, location, chair state and help; retain the stopped record.

Classify the actual finish

Choose: complete unaided; complete assisted; movement finished/reset incomplete; stopped; or not run. Record actual offsets and participant wording. 'Complete' means returned seated with both chairs restored within the operational reset target, not comfortable or safe for every user. Stage codes D/A/S/N mean done unaided, assisted, stopped or reference action not used.

Reset only after measuring

Crew resets A and B, checks the other 70 chairs and all tables, restores peer positions, confirms empty/reserved seats, boundary stability and datum. Nobody pushes A in while the mover is away. Recheck survey after anything shifts. One optional retry is allowed after resolving the cause, a full reset and participant agreement; append -R1 and retain the original. Physical changes start a new shared revision.

Compare matching records

Compare E1/E2 within the same person, occupancy, setup revision and full-build scope across B′72/B72. O1 compares only with O1. Review contact, assistance, route and participant wording before timing. Keep practice, partial builds, retries and incomplete resets visible. Do not sum times or outcomes from separate endpoint stations into a full journey.

Digital evidence retained

The F1b saved exposure cycle has 3455 states and 69550 swept part/chair checks per layout, ending with body and both chairs restored. W1 checks its actual route against all 883 outward and 883 return walk states in each layout. No geometry changed and the collision engine was not rerun. The checked release-pad path is 16.597 m one way / 33.194 m return, excluding seat connectors and chair handling. The later 15.947 m re-ranking path was not the path used in that cycle.

Read dimensions narrowly

The 973.535 mm reference measures world-X separation from the 300 mm pulled chair to the inner end-glass face. It is not an angled passage width or a human clearance claim. The 100 mm XY buffer was checked only on the local standing bypass; no positive minimum clearance for the complete cycle is established. Real furniture and bodies need observation.

Keep exposure claims separate

Current stationary model ratios are 0.6304 for B′72 and 0.6308 for B72 in reselected.json. They are conditional simulated values, not measured scent reduction, and do not meet the 0.5 reference. The selected.json geometry route is the movement source; its earlier exposure ratio is not the current re-ranking value. No scent is released in this pilot.

Archive the evidence

Keep the three-page records, setup photographs, actual path sketches, revision, proxy inventory and survey readings together. Leave unknown values blank and mark not measured. Do not copy digital passes into physical observation fields. Use W1-setting-out.json and geometry-checks.json for provenance; retain the original F1b inputs unchanged.