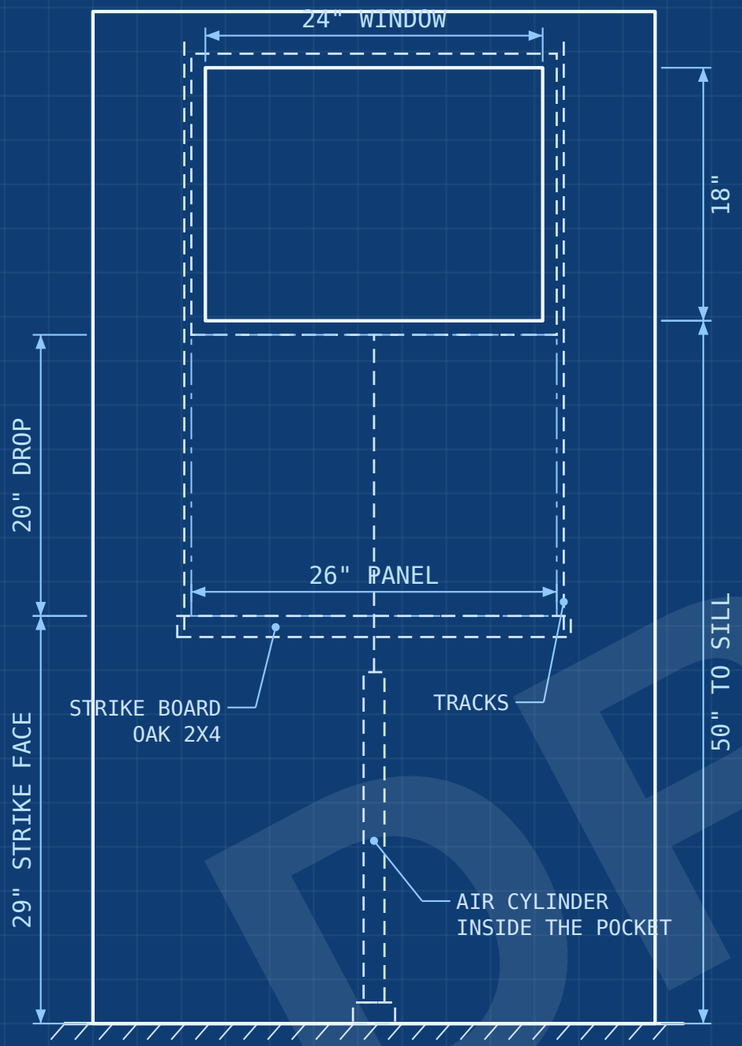
DRAFT · UNDER DEVELOPMENT · DESIGN AND DIMENSIONS MAY CHANGE

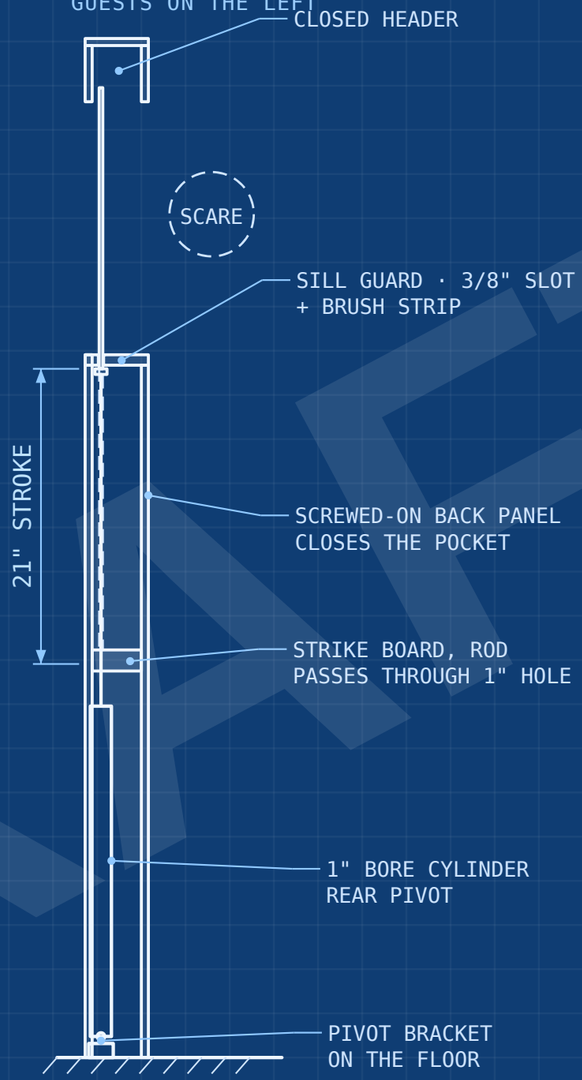
FRONT ELEVATION

GUEST SIDE · PANEL UP, DROPPED POSITION DASHED



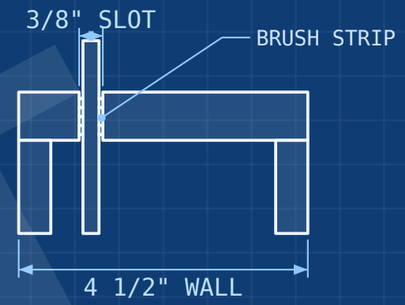
SIDE SECTION

GUESTS ON THE LEFT

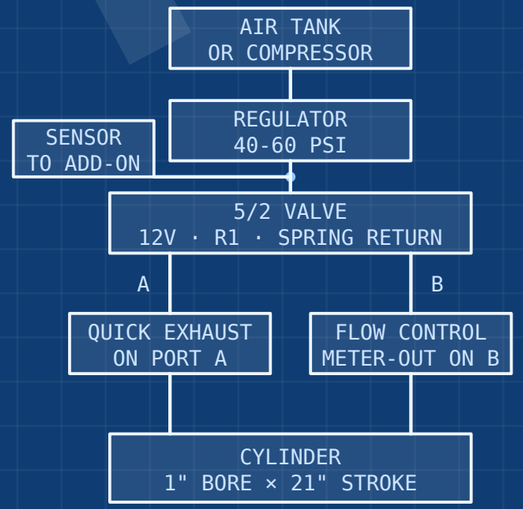


DETAIL A · SILL GUARD

THE ONLY OPENING IS THE PANEL SLOT



AIR SCHEMATIC



OFF: A PUSHES THE ROD UP, PANEL HELD UP
ON: B PULLS THE ROD DOWN, PANEL DROPS
MUFFLER ON THE VALVE EXHAUST

NOTES

1. Inches from the floor. Window 24 × 18 with the sill at 50".
2. Up, the panel overlaps the window 1" all round. Dropped, its top is 1" below the sill guard and its bottom sits on the strike board at 29".
3. The rod pad retracts to 28", 1" below the strike face, so the panel lands on the board and never on the rod.
4. Close the pocket on every side: facade, back panel, header and sill guard. Only the 3/8" slot is open.
5. Diode across the valve coil. Bleed the air before opening the pocket.

CUT LIST & HARDWARE

QTY	PART	SIZE / SPEC
1	Panel, 1/4" plywood	26 × 20
1	Edge cap, 1/4" U-channel	26", panel bottom
2	Tracks, 1/2" U-channel	42" long
1	Strike board, oak 2x4	28", 1" rod hole
1	Sill guard, 3/4" ply	28 × 4 1/2, 3/8" slot
1	Cylinder, double acting	1" bore × 21" stroke
1	5/2 valve, spring return	12V DC · R1
2	QEV + flow control	1/8" NPT, ports A + B
1	Air add-on + sensor	0.5-4.5V, 150 psi, tee

PROP CONTROL · DIY PROJECT 09

AIR DROP PANEL

Air cylinder · free-fall slam

SCALE	UNITS	SHEET
NOT TO SCALE	INCHES	1 OF 1
REV	DATE	DRAWN
A	2026-10-13	PROP CONTROL