

Top Air Ductboard Fabrication

AI Lead Qualification & Routing System — Project Portfolio

Project: Israel • Platform: Zapier • Workflow: Top Air Fabrication: Lead Qualification & AI Routing System 1

An AI-powered inbound lead triage automation that classifies new HubSpot contacts into five operational paths and executes the matching CRM, audit, email and follow-up workflow.

1. Project Overview

- Poll HubSpot contacts and process only leads whose hs_lead_status is New.
- Classify each lead with GPT-4o-mini into exactly one of five buckets.
- Route each bucket into a dedicated follow-up path with CRM updates, Google Sheets logging and templated email.
- Use GPT-4.1-nano for takeoff analysis when plans/files are available.
- Escalate complex or high-risk fabrication requests to human review instead of guessing.
- Maintain an audit trail and automate 24-hour reply-based reminders on applicable paths.

2. Architecture & Integrations

System	Role
HubSpot	Lead source, status/lifecycle updates and CRM state.
Zapier	Polling, filtering, AI classification, routing, delays and orchestration.
OpenAI	GPT-4o-mini lead classifier; GPT-4.1-nano takeoff analysis.
Google Sheets	Audit logging and structured AI outputs.
Mandrill	Templated outbound customer communication.
Gmail	24-hour reply detection before reminder emails.

HubSpot → Zapier → New-status filter → GPT-4o-mini → 5-path router → CRM / Sheets / email / follow-up.

3. Five-Path AI Router

Path	Decision	Outcome
A	MANUAL_REVIEW_REQUIRED	ATTEMPTED_TO_CONTACT; human review
B	NEED_MORE_INFO	IN_PROGRESS; request missing details
C	TAKEOFF_PENDING	IN_PROGRESS; analyze plans or request them
D	READY_FOR_QUOTE_REVIEW	OPEN_DEAL + opportunity; quote path
E	DECLINED / SPAM	UNQUALIFIED; audit only; stop

4. End-to-End Flow

- Trigger: Zapier polls HubSpot and retrieves lead identity and fabrication fields.
- Gate: only hs_lead_status = New continues.
- AI: GPT-4o-mini evaluates spam, plans, complexity, missing fields and quote readiness.
- Router: exactly one of the five path branches executes.

- Execution: HubSpot is updated and an audit row is written; customer email is sent when applicable.
- Follow-up: after 24 hours, Gmail is searched for a lead reply; reminders run only when a message is found.

5. Takeoff Analysis

TAKEOFF_PENDING has a nested split. When a website/file URL exists, GPT-4.1-nano analyzes the file and returns structured quote-analysis fields including quote status, price-match status, item summary, quote total or reason it cannot be determined, assumptions, missing variables, margin risk and customer message. If no file exists, the system requests plans/details and performs the documented follow-up flow.

The documented AI contract explicitly says not to guess dimensions, quantities, scope or pricing.

6. Business Value

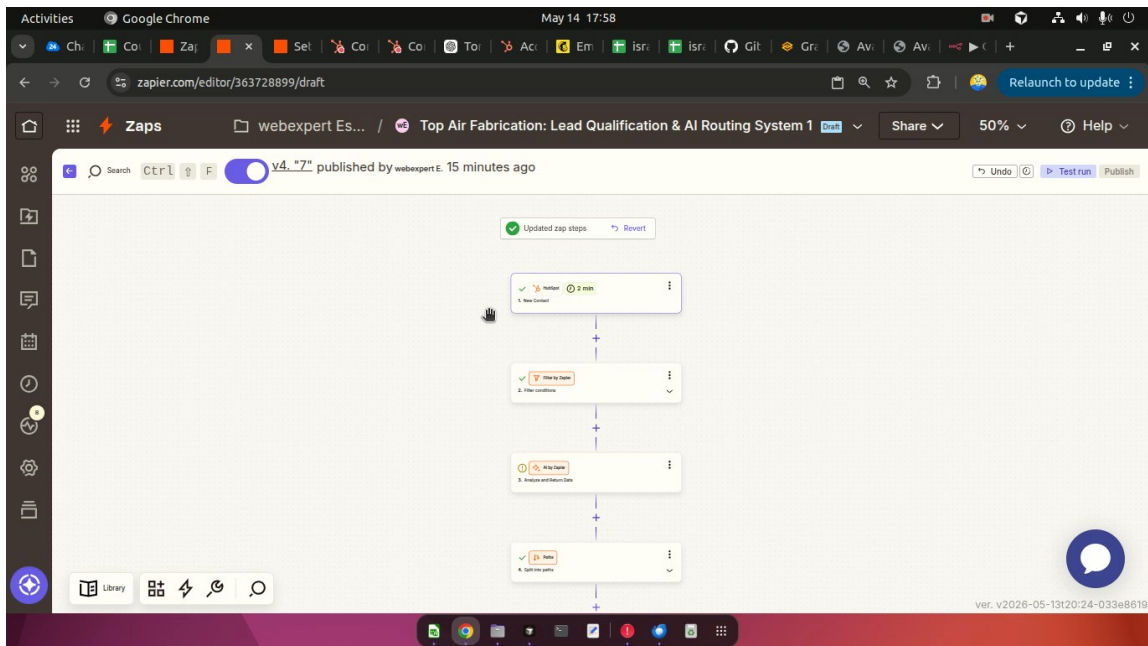
- Reduces manual sorting of every new inquiry.
- Creates a consistent qualification and routing layer.
- Moves complete leads into the opportunity/quote workflow.
- Separates complex fabrication cases for human review.
- Prevents spam from consuming sales follow-up time.
- Creates a structured audit trail for every processed lead.

7. Reliability & Operations

- Exact AI decision strings are required because path filters depend on them.
- Only New leads are processed to avoid repeated handling.
- Classifier rules are conservative: missing facts remain Not Provided and uncertainty routes toward missing information.
- Prompt changes should be tested against spam, missing dimensions, custom geometry, plans URL and a complete standard request before production replacement.
- Daily checks include Zapier failures, HubSpot queues and Sheets risk flags; weekly checks include spam false positives and Mandrill deliverability.

8. Workflow Screenshots

Workflow view 1



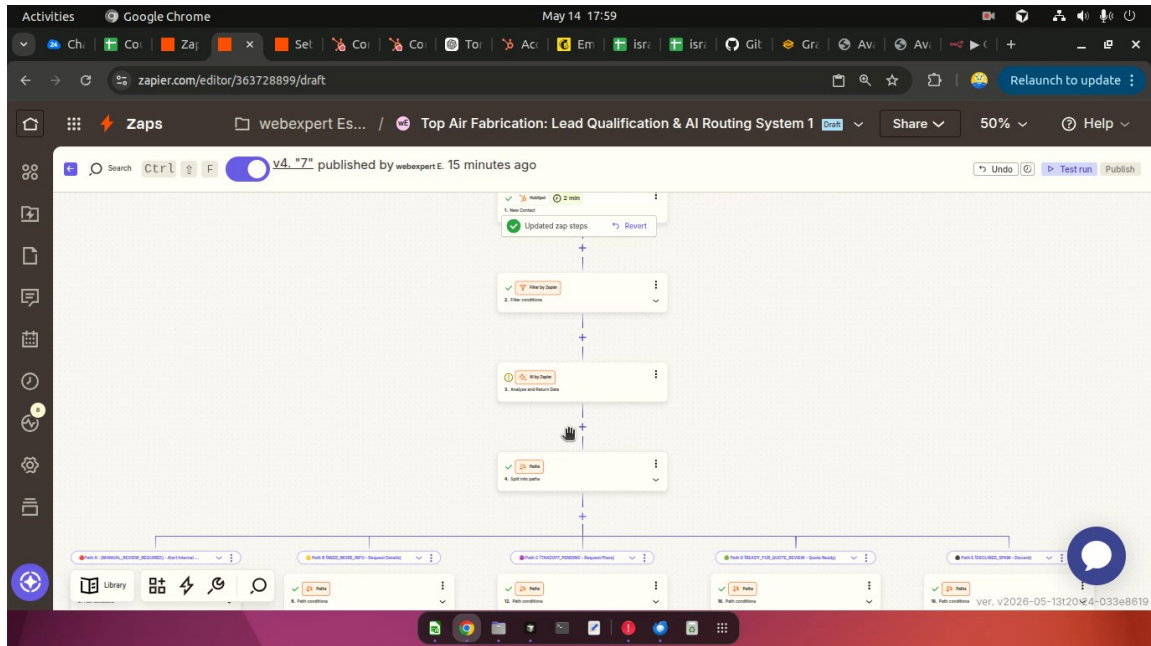
Workflow view 2

The screenshot shows a HubSpot contacts list. The list contains 11 contacts, with the following data:

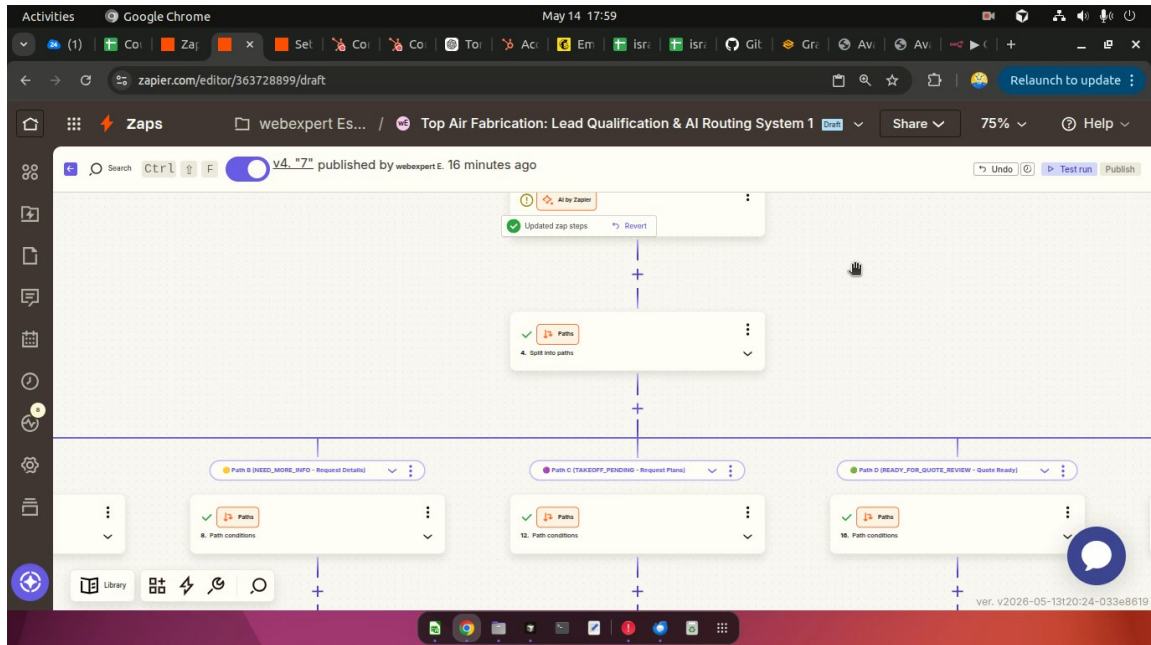
NAME	EMAIL	PHONE NUMBER	CONTACT OWNER	PRIMARY COMPANY
s john	sinh@gmail.com	--	web expert (webexpert...)	--
S miller	test@gmail.com	--	web expert (webexpert...)	--
Anthony B	esfera@gmail.com	--	web expert (webexpert...)	--
Ana Carlos	apple@gmail.com	--	web expert (webexpert...)	--
tester me	testermohali@gmail.com	--	web expert (webexpert...)	--
Carlos Ramirez	carlos.ramirez.test3@topair...	407-555-0103	No owner	topairtest.com
Marcus Wahn	marcus.wahn.test1@topair...	407-555-0101	No owner	topairtest.com

The interface includes a sidebar with various tools and a bottom bar with a "Relaunch to update" button and a "Test run" button.

Workflow view 3



Workflow view 4



Workflow view 5

Activities Google Chrome May 14 18:00

docs.google.com/spreadsheets/d/19w51r6FW5EsoFYzCscD-fMnXoALTJhw96DZ-iae1Z8/edit?pli=1&gid=1079339910#gid=107933...

israel File Edit View Insert Format Data Tools Extensions Help Accessibility

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A1

	A	B	C	D	E	F	G	H	I	J	K	L	M
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1													
2													
3													
4													
5	46123.74012	3466055320208135	Alejandro Montemayor	Am_1@msn.com	15616710005	hwac_contractor	supply_pleum	custom					Yes
6	46122.05446	8716130859431173	test lead: dummy data for full_name	test@meta.com									ummy data for phlata for which_bu data for what_you_r_is this_a_standard_impact_ham_many_linear_feet_ds_(example:_20x20x7)or do_you_havere_ther
7	484939306726	testor me		testermohali@gmail.com									
8	484939306726	testor me		testermohali@gmail.com									
9	484524039915	Ana Carlos		apple@gmail.com									
10													
11	484496975570	Anthony B		esfera@gmail.com									
12	484939306726	testor me		testermohali@gmail.com									
13	484496975570	Anthony B		esfera@gmail.com									
14	484939335413	s john		sirh@gmail.com									
15													
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+ Mapping Guide Status Options Raw leads

Workflow view 6

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9. Demo Recording

The portfolio package includes the supplied Kazam screencast as demo-video.mp4 alongside the HTML case study.

10. Technology Stack

Zapier • HubSpot • OpenAI GPT-4o-mini • OpenAI GPT-4.1-nano • Google Sheets • Mandrill • Gmail • AI by Zapier • Conditional Paths • Delay by Zapier

Source note: This portfolio was prepared from the supplied Israel Knowledge Transfer document and screencast. Credentials and access-transfer details from the source were intentionally excluded.