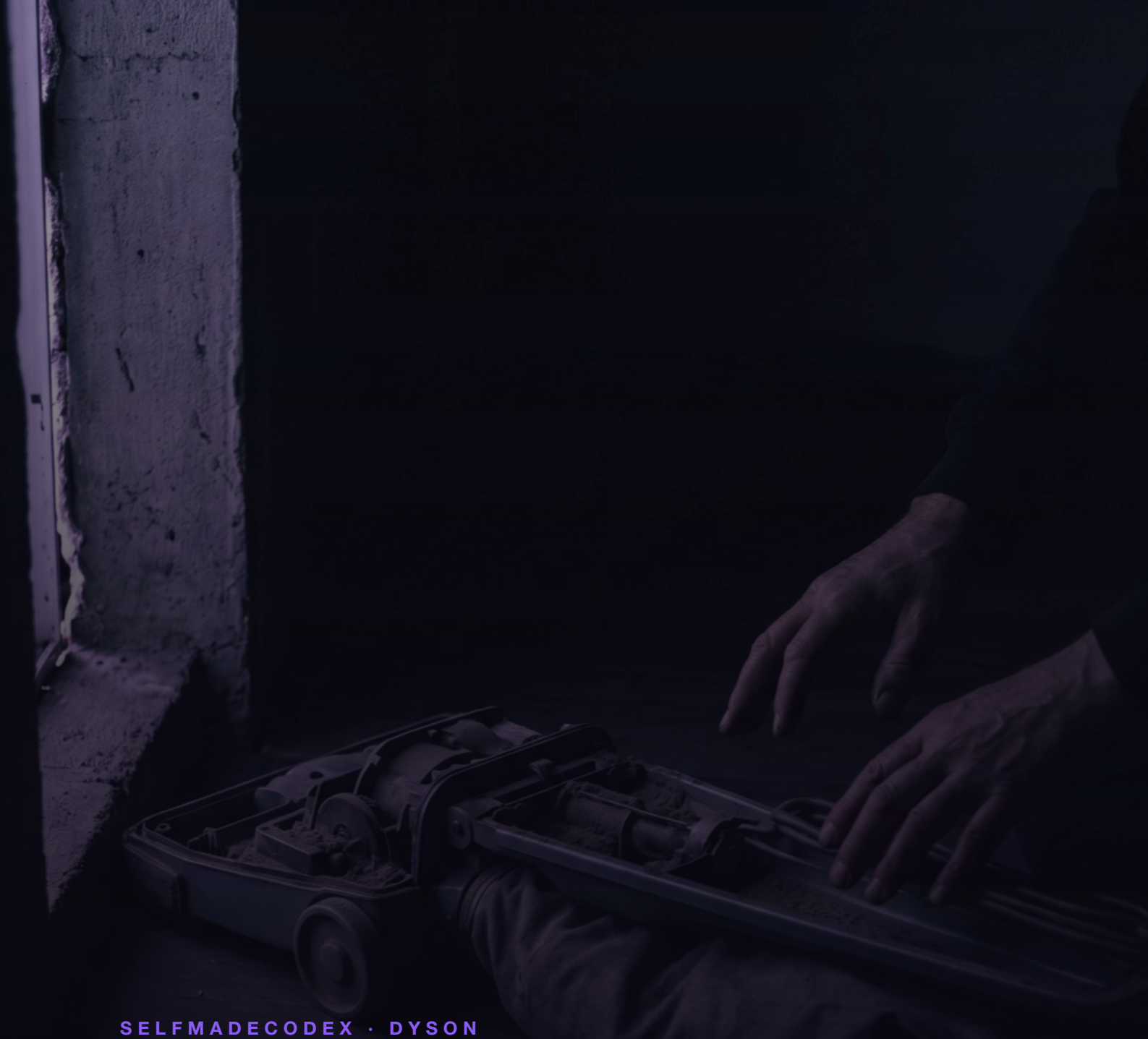


SELFMADECODEX · DYSON

The vacuum cleaner that started with a loss of suction

Sir James Dyson turned a household frustration into a company built around repeated prototypes, licensing and difficult decisions.

Selfmade CODEX

The story in numbers

US$2,000

The G-Force sold for the equivalent of US$2,000

REPORTED

£4 million

Hoover agreed to pay £4 million in damages

REPORTED

£2 billion

Dyson planned to invest £2 billion of his own money in the elect

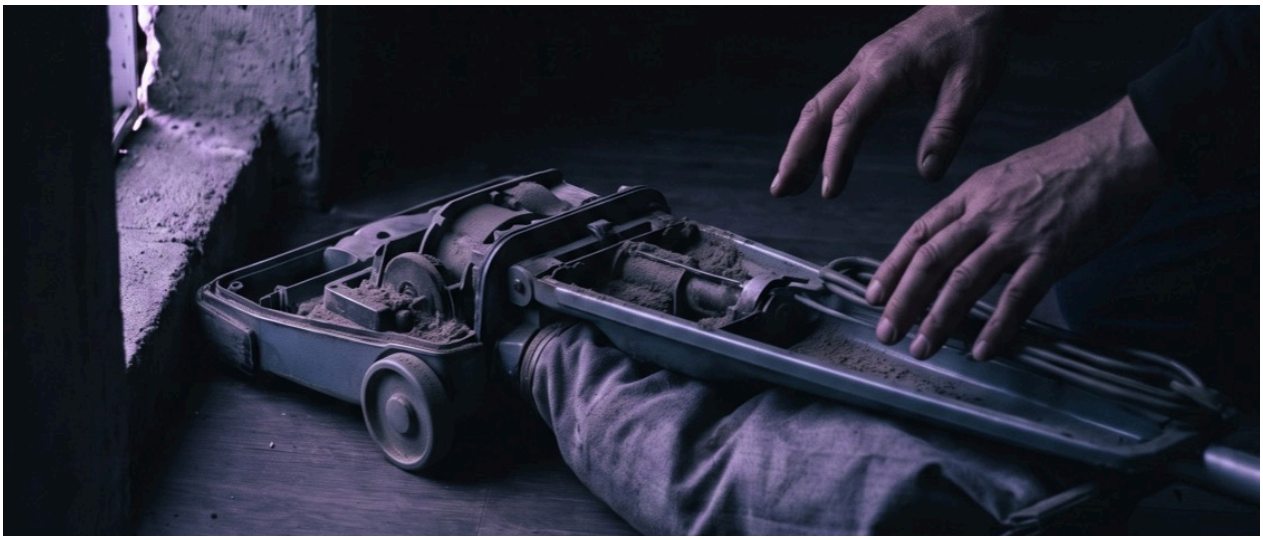
REPORTED

Where the numbers come from

Every figure in this document was checked against its original source. Here is how they break down:

Independently reported · 25 Self-reported · 2 Estimate or inference · 1 Not verified · 1

> **Dyson licensed the technology in North America from 1986 to 2001 to Fantom Technologies**
>
> EN.WIKIPEDIA.ORG · INDEPENDENTLY REPORTED



The path

1947

James Dyson was born on 2 May 1947 in Cromer, Norfolk, England.

1965-1966

Dyson spent a year at the Byam Shaw School of Art.

1966-1970

Dyson studied furniture and interior design at the Royal College of Art before moving into product design.

EARLY 1970S

Dyson helped design the Sea Truck and developed the Ballbarrow.

1979-1984

Dyson developed 5,127 prototype designs for the cyclonic vacuum.

1983

Dyson launched the G-Force cleaner through catalogue sales in Japan.

1986

A reworked version of the Cyclon, called G-Force, went into production and was sold in Japan.

1991

Using income from the Japanese licence, Dyson set up Dyson Appliances Limited, registered as Barleta Limited.

1993

Dyson opened a production facility in Chippenham, Wiltshire, and the first vacuum built there was completed on 1 July.

01

The Problem Came First

James Dyson did not begin with a category. He began with a machine that stopped working.

In the 1970s, Dyson bought a Hoover Junior. Its suction dropped when the dust bag became clogged.

He looked for the reason instead of accepting the limitation. Sawmills used cyclone technology to separate dust from air. Dyson began testing whether the same principle could work in a household vacuum cleaner.

He built a 30-foot cyclone model at the Ballbarrow factory. Then he made a cardboard version, connected it to a Hoover with the bag removed, and found that it worked satisfactorily.

The first useful step was not a company, a pitch deck or a launch. It was a test of the mechanism.

- Problem: loss of suction caused by a clogged dust bag. [FACT]
- Approach: cyclonic separation. [FACT]
- The central lesson is an inference from the development history: start with a problem you have personally observed. [INFERENCE]

02

A Product Before A Company

The early model was built around a piece of technology, not around a polished brand.

Dyson developed a bagless vacuum cleaner using cyclonic separation. The work continued in a shed behind his house, while prototypes became more useful and more expensive to build.

Jeremy Fry provided part of the investment for the cyclonic vacuum development. The remainder came from a loan. This was a practical financing arrangement for development, not proof that the business was already viable.

Major manufacturers in the United Kingdom and the United States rejected the idea. That closed one route to market. It did not establish that the product would succeed.

Dyson eventually licensed the design to Apex Ltd, a Japanese company. The business model therefore began with development and licensing before Dyson entered the market under his own name.

- Develop: build and test the appliance.
- License: let an established company take the product to market.
- Manufacture and sell: later operate under the Dyson name.
- The order mattered. The company followed the product work.

03

The Long Route To Market

The sequence was less dramatic than the final story. It was mostly a series of concrete decisions.

First, Dyson noticed a recurring failure in an existing product. Next, he investigated a technology from another industry. He tested the principle at large scale, then reduced it to a working cardboard model.

After that test, he kept developing prototypes in a shed. The prototype history is commonly reported as 5,127 designs. Dyson personally described it as 5,127 attempts and said 5,126 had failed before the solution. The attempt and failure figures are self-reported.

When manufacturers rejected the design, he changed the route rather than abandoning the work. Apex licensed the technology, and the G-Force cleaner launched in Japan in 1983.

Only later, using income from the Japanese licence, did Dyson found Dyson Ltd in 1991.

- Observe a specific failure.
- Test the mechanism before selling the narrative.
- Build a rough version that can answer one question.
- Use licensing or partnership when direct market access is blocked.
- Treat the first route to market as changeable.

04

Revenue Came In Stages

The first commercial proof did not come from a Dyson-branded launch.

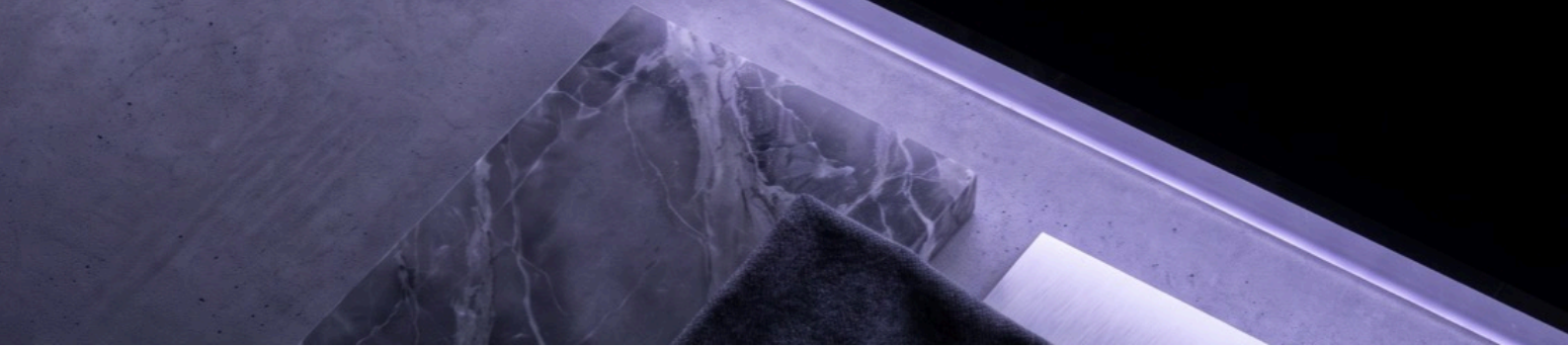
Apex produced and sold the G-Force vacuum cleaner in Japan in 1983. It sold for the equivalent of US$2,000. [FACT] The licence gave Dyson a route to revenue and helped fund the next stage.

The first dual-cyclone vacuum built under the Dyson name later sold for about £200. [FACT] In North America, Dyson licensed the technology to Fantom Technologies from 1986 to 2001 before entering the market directly. [FACT]

The company also defended its patent. Dyson sued Hoover in a patent infringement case and won. According to the material, Hoover agreed to pay £4 million in damages. [FACT]

This was not one monetization trick. It was a sequence: license the technology, use the proceeds to build the company, sell directly where possible, and protect the underlying invention.

> All figures on this page are sourced facts from the supplied material. The US$2,000 figure is an equivalent value, not necessarily the original transaction currency.



05

Expansion Without Leaving The Core

Dyson expanded from one household problem into a wider appliance company, but research remained part of the operating model.

The company moved beyond vacuum cleaners into hand dryers, fans, heaters, hair dryers, air purifiers and lights. It also invested in robotics, artificial intelligence and battery technology.

Manufacturing and supply-chain operations expanded in Asia. In 2019, Dyson announced the relocation of its headquarters to Singapore, citing proximity to Asian markets, manufacturing and supply-chain hubs. [FACT]

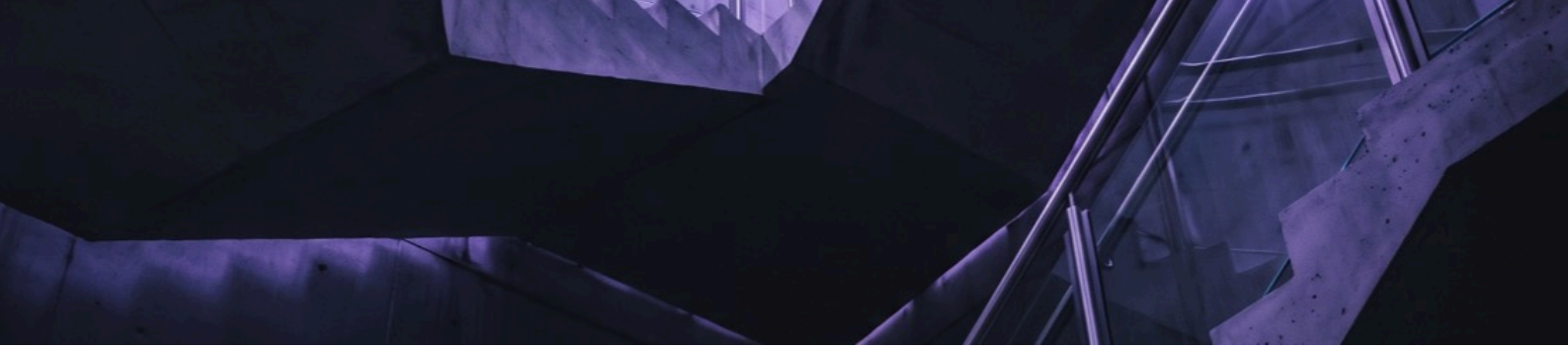
The company established partnerships with universities and founded the Dyson Institute of Engineering and Technology. These choices connected product development with technical training and research.

The scale is real, but it is not the useful starting point for someone with a side project. The more transferable pattern is narrower: protect time for development, learn from adjacent technologies and build the operational capacity that the product requires.

06

Expansion Without Leaving The Core (2)

- Expansion categories: appliances, air treatment, personal care and lighting. [FACT]
- Longer-term investment areas: robotics, AI, batteries and engineering education. [FACT]
- Dyson and the Dyson family own 100% of Dyson Ltd. [FACT]
- The material describes 14,000 employees in 2022. [FACT]



07

Rejection Was Not The Only Risk

Some ideas were rejected before launch. Others reached the market and still failed.

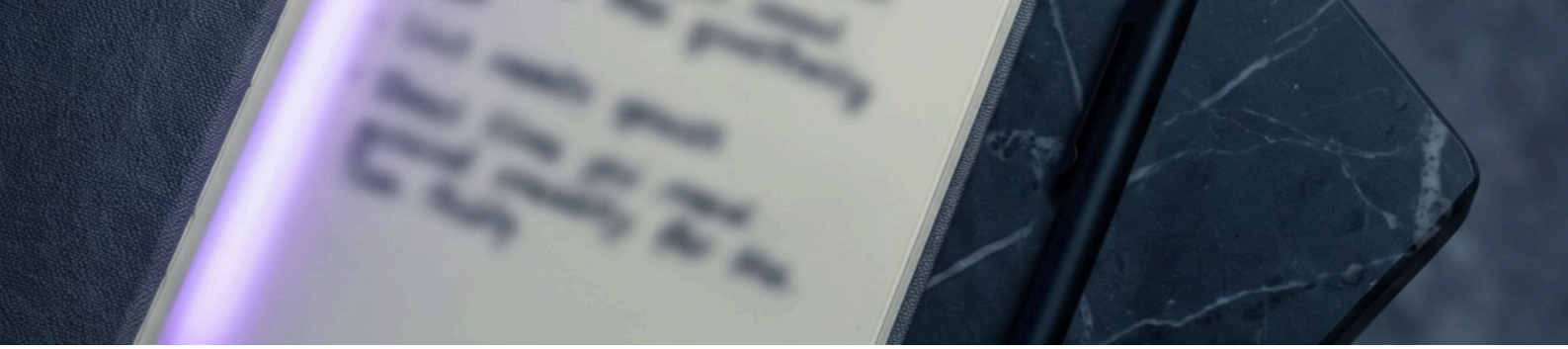
The first red and blue prototype vacuum cleaner brought Dyson little success. The ContraRotator washing machine was not a commercial success and was discontinued.

The company later announced plans for an electric vehicle, with a 2020 launch target and a planned investment of £2 billion of James Dyson's own money. The project was cancelled because Dyson said it was not commercially viable. [FACT]

Dyson also worked on the CoVent ventilator. It was no longer required by the British government. [FACT]

These examples complicate the usual persistence story. Continuing to develop a product can be rational. Continuing every product forever is not. The decision has to change when the evidence changes.

- Rejection can force a different route to market, but it does not validate demand.
- Prototype volume shows iteration, not a guaranteed result.
- A cancelled project can be a commercial decision, not automatically a personal failure.
- Research can be contradicted by a product decision. Dyson introduced a transparent dust container despite market research; it became a popular and enduring feature. [FACT]



08

Five Lessons Worth Keeping

The useful part of the story is not the number of attempts. It is what happened between them.

Start with a problem you can describe without using a slogan. Dyson could point to the exact moment the vacuum lost suction.

Test the mechanism before trying to sell the story around it. The cardboard model answered a technical question before the business had a finished identity.

Separate rejection from evidence. A manufacturer saying no may mean the route is wrong. It does not mean the idea is right.

Use iteration as a method, not as a badge. The 5,127 prototype designs are evidence of repeated development. The claim of 5,126 failures is Dyson's own account. Neither figure promises that persistence will produce a market.

Keep a way to stop. The electric vehicle project ended when Dyson said it was not commercially viable. Persistence made room for judgment.

> The point is not to imitate the scale of Dyson's history. It is to notice that the first move was small enough to make: identify a failure, isolate the mechanism and test it.

09

How Would You Start This Model Today?

Do not start by copying the product. Copy the order of questions.

Choose one recurring problem in a product or workflow you already understand. Write down what fails, when it fails and who notices.

Build the smallest test that can isolate the mechanism. A rough prototype, manual service or software simulation may be enough. The first version should answer one question, not represent the whole company.

Put it in front of a few people who already experience the problem. Ask what they do now, what the workaround costs them and what would make them switch. Do not treat polite interest as demand.

If the prototype works but distribution is difficult, examine licensing, partnerships or a narrow first market. If the economics do not work, change the product or stop.

Only then decide whether to build a direct brand. The Dyson path moved from observation to mechanism, prototype, licence and eventually direct sales. The order is available today, even when the product is completely different.

- Today: document one observed failure.
- This week: build one testable version.
- Next: watch a real person use it.
- Then: choose direct sales, licensing, partnership or no launch based on evidence.

10

Tools And Resources

The tools matter less than the question each one helps you answer.

For problem discovery, keep a plain observation log. Record repeated complaints, workarounds and moments where an existing product stops doing its job.

For prototypes, use the cheapest material that can test the mechanism: cardboard, tape, off-the-shelf parts, spreadsheets, no-code software or a manual service. Upgrade only when the current version answers its question.

For user research, use short interviews and observed tasks. Ask what happened the last time, not what someone might do in the future.

For commercial checks, track unit cost, price, delivery time, support effort and repeat use in a simple spreadsheet. Treat self-reported interest as a signal, not a sale.

For protection and partnerships, consult an intellectual-property professional before relying on patents or licensing terms. For manufacturing, speak with suppliers early enough to learn what the design will actually require.

There is no affiliate recommendation on this page. These are working methods, not a shopping list.

11

Tools And Resources (2)

- Observation log: find the specific failure.
- Prototype materials: test the mechanism cheaply.
- Interviews and observed tasks: distinguish interest from behaviour.
- Spreadsheet: check whether the model can support itself.
- Professional legal and manufacturing advice: reduce avoidable technical and commercial risk.

> The guide ends where the story began: with a problem precise enough to test. The first step is not to become Dyson. It is to find the failure in front of you and make one honest attempt to understand it.

Sources & transparency

Every figure in this document comes with its source. Anything the person only stated about themselves is marked as self-reported.

• James Dyson founded Dyson Ltd — Founded in 1991 [FACT] Wikipedia https://en.wikipedia.org/wiki/Dyson_(company)

• Dyson Ltd is a British-Singaporean multinational technology company — British-Singaporean [FACT] Wikipedia https://en.wikipedia.org/wiki/Dyson_(company)

• James Dyson is the founder of Dyson — Sir James Dyson [FACT] Wikipedia https://en.wikipedia.org/wiki/Dyson_(company)

• Dyson's vacuum cleaner idea was based on cyclonic separation — Cyclonic separation [FACT] Wikipedia https://en.wikipedia.org/wiki/James_Dyson

• The original vacuum problem was loss of suction caused by a clogged dust bag — Loss of suction [FACT] Wikipedia https://en.wikipedia.org/wiki/James_Dyson

• Dyson developed 5,127 prototype designs — 5,127 [FACT] Wikipedia https://en.wikipedia.org/wiki/Dyson_(company)

• Dyson personally described the prototype history as 5,127 attempts — 5,127 attempts [SELF-REPORTED] Wikipedia https://en.wikipedia.org/wiki/James_Dyson

• Dyson said there were 5,126 failures before the solution — 5,126 [SELF-REPORTED] Wikipedia https://en.wikipedia.org/wiki/James_Dyson

• The G-Force vacuum cleaner was launched in Japan — 1983 [FACT] Wikipedia https://en.wikipedia.org/wiki/James_Dyson

• The G-Force sold for the equivalent of US$2,000 — US$2,000 [FACT] Wikipedia https://en.wikipedia.org/wiki/James_Dyson

• Dyson licensed the technology in North America to Fantom Technologies — 1986-2001 [FACT] Wikipedia https://en.wikipedia.org/wiki/James_Dyson

• Dyson sued Hoover for patent infringement and won — Patent infringement case [FACT] Wikipedia https://en.wikipedia.org/wiki/James_Dyson

• Hoover agreed to pay £4 million in damages — £4 million [FACT] Wikipedia https://en.wikipedia.org/wiki/James_Dyson

• Dyson expanded beyond vacuum cleaners into several household appliance categories — Vacuum cleaners, hand dryers, fans, heaters, hair dryers, air purifiers and lights [FACT] Wikipedia https://en.wikipedia.org/wiki/Dyson_(company)