

What Does Redwire Actually Do?

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Christopher Kalitin Blog (<https://ckalitin.github.io/posts/what-redwire-does/>)

<https://docs.google.com/document/d/1UABCu2zjmhL5Ubin3RqtoLB58OfTvIAa6MIO8kJVXak/edit?tab=t.0> (<https://docs.google.com/document/d/1UABCu2zjmhL5Ubin3RqtoLB58OfTvIAa6MIO8kJVXak/edit?tab=t.0>)

<https://docs.google.com/spreadsheets/d/1tzLufDsxVynrEPRKpTy2k5LgNtBfFANzx5GnK2KkDM0/edit?gid=1658866048#gid=1658866048> (<https://docs.google.com/spreadsheets/d/1tzLufDsxVynrEPRKpTy2k5LgNtBfFANzx5GnK2KkDM0/edit?gid=1658866048#gid=1658866048>)

<https://github.com/CKalitin/ckalitin.github.io/tree/master/assets/RDW> (<https://github.com/CKalitin/ckalitin.github.io/tree/master/assets/RDW>)

Structure:

1. Recently watched the DaveG interview with the CEO and ScottO's video, saw some potential for an investment. First figure out what Redwire actually does.
2. Highlevel product overview
3. Acquisitions
4. Historic Contracts
5. Satellite Busses
6. Software
7. Founding of Redwire
8. Electric Propulsion Thruster

Introduction

- Saw the interview and stock tank, thought there might be an opportunity
- Link ScottO's and Dave G's videos
- They do everything (satellite busses, software, structures, solar arrays, propulsion, etc.)
- No grand strategy with acquisitions

Directly after Q2 2025 earnings was realized, Redwire stock (RDW) dropped 31% in a single day.

Around this time I had watched [Dave G's interview with the CEO of Redwire](https://www.youtube.com/watch?v=AXlyHb46m2g) (<https://www.youtube.com/watch?v=AXlyHb46m2g>), Peter Cannito, and Scott O's video [How I Gaslight Myself into Buying Redwire](#) ([ht](#)

<https://www.youtube.com/watch?v=lvr5vF2JbZg>). So, while I was in the process of slowly learning about a new space company, the stock dropped 31% and I came to the conclusion that I should put some effort into figuring out if there was an investment opportunity here.

First, I sought to figure out what Redwire actually does. For some companies this is an extremely easy question to answer. Rocket Lab launches electron and sells satellite parts, SpaceX sells Starlink subscriptions and launches the Falcon 9 and Starship on the side, Tesla sells EVs and will win self-driving cars. Redwire, on the other hand, does a little bit of everything and doesn't focus on a single core business.

Redwire's business can be broken down into the following categories:

1. Satellite Busses (VLEO, LEO, GEO)
2. Space Systems (structures, electric thrusters, avionics, solar arrays, RF systems, payload adapters, etc.)
3. Space Science / Manufacturing (ISS experiments, in-space pharmaceutical research)

In building out a diverse and disparate product line, Redwire acquired 9 companies between 2020 and 2025. These acquisitions don't seem to have any grand strategy behind them, and all seem like marginal steps to increasing the breadth of Redwire's product offerings, with no clear plan. This is on contrast to Rocket Lab, which has a clear strategy of acquiring companies that help it vertically integrate into an end-to-end launch and satellite manufacturing company.

Acquisitions

Before any acquisitions came the merger of Adcole Space and Deep Space Systems in 2020. Adcole, based in Massachusetts, specialised in design, manufacturing, integration, and testing of spacecraft components. Some of their products included optical sensors and star trackers. Deep Space Systems (DSS), based in Colorado, focused on systems engineering and spacecraft design. They were founded in 2001 and were considered a key contractor early in the NASA CLPS program. DSS was part of Lockheed's original bid for Orion in 2006 and worked on Orion's avionics.

AE Industrial Partners, a private equity firm, led the merger of Adcole and DSS to form Redwire. After the merger, [Redwire went on to acquire 9 additional companies](https://d1io3yog0oux5.cloudfront.net/_6200c35b11d134e94999e85dff0661b6/redwirespace/db/856/7620/pdf/Redwire+101+-+Updated+as+of+August+2025.pdf) (https://d1io3yog0oux5.cloudfront.net/_6200c35b11d134e94999e85dff0661b6/redwirespace/db/856/7620/pdf/Redwire+101+-+Updated+as+of+August+2025.pdf) presumably with involvement from AE Industrial Partners (they also funded Edge Autonomy).

1. **Made In Space (Jun 2020)** - Orbital additive manufacturing, zero-g printing.
2. **Roccor (Oct 2020)** - Solar arrays, booms, hinges, antennas, RF.

3. **LoadPath (Dec 2020)** - Satellite structures, launch adapters, thermal management components, deployable structures, etc.
4. **Oakman Aerospace (Jan 2021)** - Spacecraft integration and testing and lab space.
5. **Deployable Space Systems (Feb 2021)** - Deployable solar arrays, structures, flexible and concentrator arrays, etc.
6. **Techshot (Nov 2021)** - Biotech in 0g, bioprinting, on-orbit manufacturing.
7. **Space NV (Oct 2022)** - Belgium-based satellite design and development. Specializes in computers, power control and distribution, and terminals. Developed the International Berthing and Docking Mechanism. Acquired from QinetiQ for €32 million, adding \$109.8 million in contract value. ([source](https://ir.redwirespace.com/sec-filings/quarterly-reports/content/0001819810-24-000043/0001819810-24-000043.pdf) (<https://ir.redwirespace.com/sec-filings/quarterly-reports/content/0001819810-24-000043/0001819810-24-000043.pdf>), page 33)
8. **Hera Systems (Aug 2024)** - Specializes in small satellite technologies for the defense industry, with approximately \$15 million in annual revenue prior to acquisition. The undisclosed acquisition price brought in \$21.9 million in contract value ([source](https://www.sec.gov/Archives/edgar/data/1819810/000181981024000111/exhibit991redwire9302024ea.htm) (<https://www.sec.gov/Archives/edgar/data/1819810/000181981024000111/exhibit991redwire9302024ea.htm>), page 11).
9. **Edge Autonomy (Jan 2025)** - Drone manufacturer in defense.

At this point in my research, I realized this is really the opposite of my usual [investing](https://ckalitin.github.io/investing/2023/10/11/80-trillion-dollars.html) (<https://ckalitin.github.io/investing/2023/10/11/80-trillion-dollars.html>). [philosophy](https://ckalitin.github.io/technology/2024/11/19/s-curve-examples.html) (<https://ckalitin.github.io/technology/2024/11/19/s-curve-examples.html>). It is an exponentially growing sector, but Redwire isn't quite following Wright's Law or any fundamental underlying pattern. It's just growth of little individual programs brought into a single organization. I still had some hope of finding a reason to buy RDW, so I continued researching.

Overview of Historic Contracts

Hopefully the list of acquisitions above shed some light on what Redwire does. However, without further context there's no way to know how successful any of these acquisitions have been or if there are any synergies between the different companies. To get a better idea of what Redwire actually does, here's a list of some contracts they've won in the last few years.

NASA Contracts

- **March 2025:** Won a contract to deliver four PIL-BOXes to the International Space Station (ISS) for pharmaceutical drug development in microgravity.
Source: [Redwire](https://redwirespace.com/newsroom/redwire-awarded-nasa-contract-to-expand-pharmaceutical-drug-development-in-space-for-future-commercialization/) (<https://redwirespace.com/newsroom/redwire-awarded-nasa-contract-to-expand-pharmaceutical-drug-development-in-space-for-future-commercialization/>).

- **January 2025:** Delivered the fourth pair of Roll-Out Solar Array (iROSA) wings for the ISS, increasing station power.
Source: [Redwire](https://redwirespace.com/newsroom/redwire-successfully-delivers-fourth-pair-of-roll-out-solar-array-wings-for-iss-power/) (https://redwirespace.com/newsroom/redwire-successfully-delivers-fourth-pair-of-roll-out-solar-array-wings-for-iss-power/)
- **2025 (Tipping Point Program):** Received \$12.9M in prototype funding for the Mason Martian / Lunar manufacturing technology, aimed at developing infrastructure for sustainable human presence on the Moon and Mars.
Source: [Redwire](https://redwirespace.com/newsroom/redwire-receives-nasa-approval-to-advance-cutting-edge-manufacturing-technology-for-building-infrastructure-on-moon-and-mars/) (https://redwirespace.com/newsroom/redwire-receives-nasa-approval-to-advance-cutting-edge-manufacturing-technology-for-building-infrastructure-on-moon-and-mars/)

European Space Agency (ESA) Contracts

- **February 2025:** Awarded a contract to lead the preliminary spacecraft design for an ESA astrophysics mission focused on imaging, utilizing Redwire's Hammerhead satellite platform. Redwire Space NV, an acquired subsidiary, leads this effort.
Source: [Redwire](https://redwirespace.com/newsroom/redwire-awarded-contract-to-lead-study-for-the-european-space-agencys-next-dark-matter-mission/) (https://redwirespace.com/newsroom/redwire-awarded-contract-to-lead-study-for-the-european-space-agencys-next-dark-matter-mission/)
- **May 2025:** Delivered an on-board computer (OBC) for ESA's Comet Interceptor mission.
Source: [Redwire](https://redwirespace.com/newsroom/redwire-successfully-delivers-onboard-computer-for-esas-comet-interceptor-mission-to-study-pristine-comet/) (https://redwirespace.com/newsroom/redwire-successfully-delivers-onboard-computer-for-esas-comet-interceptor-mission-to-study-pristine-comet/)
- **2025:** Provided avionics and on-board computer systems for ESA's Next-Generation Gravity Mission.
Source: [BioSpace](https://www.biospace.com/press-releases/redwire-awarded-contract-to-provide-critical-avionics-technology-for-multinational-earth-observation-satellite-constellation) (https://www.biospace.com/press-releases/redwire-awarded-contract-to-provide-critical-avionics-technology-for-multinational-earth-observation-satellite-constellation)
- **April 2025 (with OHB Italia):** Developed the International Berthing & Docking Mechanism for ESA's Lunar I-Hab Gateway module, a lunar gateway component.
Source: [SpaceNews](https://spacenews.com/redwire-wins-darpa-contract-for-vleo-demonstration/) (https://spacenews.com/redwire-wins-darpa-contract-for-vleo-demonstration/)

Defense and Commercial Contracts

- **December 2025:** Secured a \$45M contract from the US Air Force Research Laboratory (AFRL) for the design, development, and testing of "mission-critical technologies" to enhance space-based capabilities for warfighters.
Source: [Redwire](https://redwirespace.com/newsroom/redwire-awarded-45-million-contract-from-air-force-research-laboratory-afrl-to-advance-enhanced-space-based-capabilities-for-the-warfighter/) (https://redwirespace.com/newsroom/redwire-awarded-45-million-contract-from-air-force-research-laboratory-afrl-to-advance-enhanced-space-based-capabilities-for-the-warfighter/)
- **February 2025:** Awarded a contract to deliver a Mako spacecraft for the US Space Force (USSF) Tetra-6 mission, building on prior success with two Mako spacecraft for Tetra-5. These will be the first geostationary satellites designed for in-orbit refueling.

Source: [Redwire](https://redwirespace.com/newsroom/redwire-wins-follow-on-contract-to-deliver-third-mako-spacecraft-for-u-s-space-force/) (<https://redwirespace.com/newsroom/redwire-wins-follow-on-contract-to-deliver-third-mako-spacecraft-for-u-s-space-force/>)

- **August 2022 (Inherited from Hera Systems):** Partnered with Orion Space on a USSF contract for an in-orbit refueling and servicing experiment.

Source: [SpaceNews](https://spacenews.com/orion-space-wins-u-s-space-force-contract-for-on-orbit-services-experiment/) (<https://spacenews.com/orion-space-wins-u-s-space-force-contract-for-on-orbit-services-experiment/>)

- **August 2024:** Selected by a “European Defense Contractor” to provide flight-proven RF payloads from their Longmont, Colorado facility (acquired via Rocco).

Source: [Redwire](https://redwirespace.com/newsroom/redwire-selected-to-provide-advanced-rf-payloads-to-a-leading-european-defense-contractor-expanding-rf-offerings-to-overseas-markets) (<https://redwirespace.com/newsroom/redwire-selected-to-provide-advanced-rf-payloads-to-a-leading-european-defense-contractor-expanding-rf-offerings-to-overseas-markets>)

- **July 2025 (with Maxar):** Delivered two ROSA wings for the Power and Propulsion Element (PPE) of NASA’s Gateway, most powerful roll-out solar arrays ever built.

Source: [BusinessWire](https://www.businesswire.com/news/home/20250702438974/en/Redwire-Successfully-Deploys-the-Most-Powerful-Roll-Out-Solar-Arrays-Ever-Built-Prepares-for-Major-Delivery-in-Fourth-Quarter) (<https://www.businesswire.com/news/home/20250702438974/en/Redwire-Successfully-Deploys-the-Most-Powerful-Roll-Out-Solar-Arrays-Ever-Built-Prepares-for-Major-Delivery-in-Fourth-Quarter>)

- **2025 (with Aspera Biomedicines):** Awarded a contract to investigate ADAR1 inhibitor therapies using a PIL-BOX on the ISS.

Source: [Redwire](https://redwirespace.com/newsroom/redwire-awarded-contract-from-aspera-biomedicines-to-investigate-cutting-edge-cancer-treatment-in-space/) (<https://redwirespace.com/newsroom/redwire-awarded-contract-from-aspera-biomedicines-to-investigate-cutting-edge-cancer-treatment-in-space/>)

Satellite Busses

Acorn & DEMSI Software

Valkyrie Electric Propulsion Thruster