



# NO TIME TOULOUSE

PRESS KIT | JUNE 2024



# LAUNCH INFORMATION

Rocket Lab will launch a dedicated Electron rocket for French Internet of Things (IoT) company Kinéis.

This mission is our milestone 50th Electron rocket launch.



## LAUNCH SITE

Launch Complex 1 – Pad B  
Mahia, New Zealand.



## LAUNCH WINDOW

The launch window opens on **June 19th** NZST and extends for 14 days.

This launch requires an instantaneous T-O and it remains the same for every day of the launch window.

Time Zone	Window Open
NZST	6:13 am
EDT	2:13 pm
UTC	6:13 pm
PDT	11:13 am



## ORBIT

# 635km



## SATELLITES

# 5

5x IoT satellites



## INCLINATION

# 98

Degrees



## CUSTOMER

# Kinéis

# MISSION OVERVIEW

About 'No Time Toulouse'

'No Time Toulouse' will be Rocket Lab's 50th launch since Electron missions began in May 2017. Lifting off from Launch Complex 1 in New Zealand, the mission will deploy five satellites for French IoT company Kinéis.



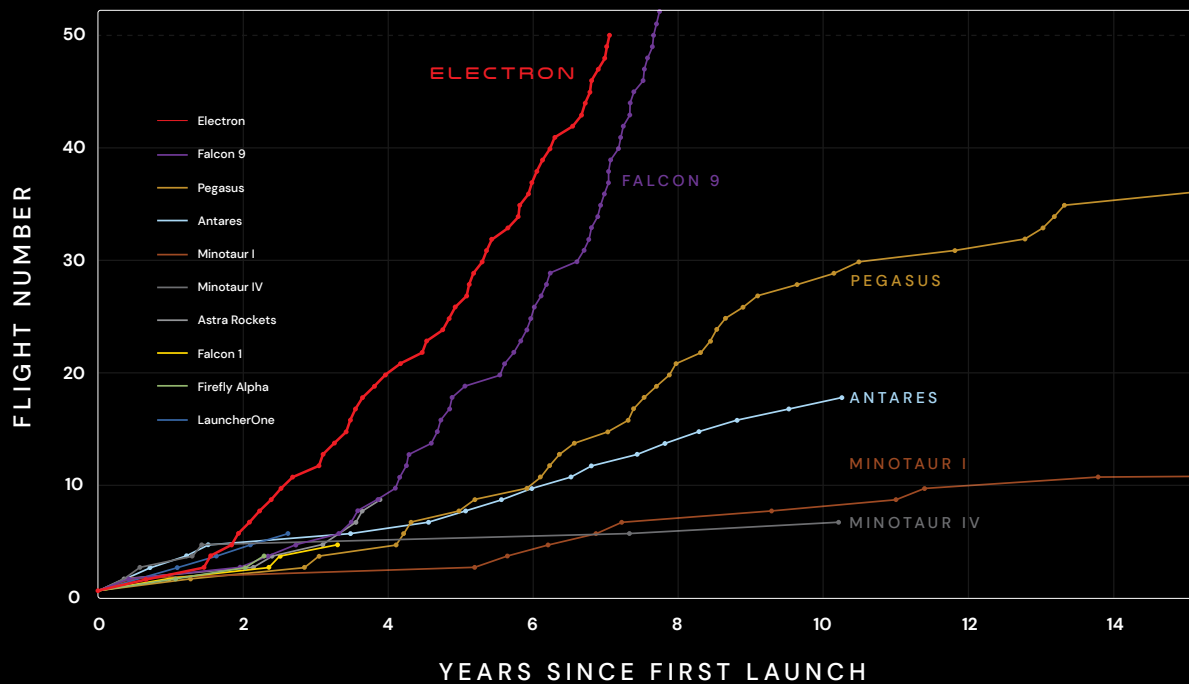
The mission is the first of five dedicated Electron launches for Kinéis, a company backed by private and public investors including the French government's space agency CNES (Centre National d'Études Spatiales) and CLS (Collecte Localisation Satellites) an international space-based solutions provider, to improve global IoT connectivity. Across these five launches, Rocket Lab will deploy Kinéis' complete constellation of 25 satellites.

The launch has been tailored specifically to meet Kinéis' mission requirements, giving them greater control over launch schedule, orbit, and deployment parameters than would be possible on a larger rideshare mission. Tailored mission parameters for this launch include:

- Instantaneous launch window,
- After the first Curie engine burn to circularize the Kick Stage's orbit, Curie will ignite again for an eight second burn to set a specific argument of perigee, enabling Kinéis to deploy five satellites to a precise orbit,
- All five satellites will be deployed in a precise sequence in singles and as pairs to build out the constellation exactly as Kinéis needs it,
- Finally, Curie will conduct a perigee lowering burn to reduce the Kick Stage's orbital lifetime to keep space sustainable.

# CELEBRATING 50 LAUNCHES

Electron has reached its 50th launch faster than any other commercially developed rocket in history.



## ELECTRON HAS ALWAYS BEEN A RECORD BREAKER



First 3D printed orbital rocket engine



First rocket engine to be powered by electric pumps instead of a traditional gas turbine



First carbon composite orbital class Rocket



Launched from world's first private orbital launch site



Enabled the first lunar mission launched by a small rocket (NASA's CAPSTONE mission)



Completed the first dedicated launch for the NRO from a spaceport outside the US

## 50 ELECTRON LAUNCHES BY THE NUMBERS

This launch will mark:



# 50

Launches including  
one HASTE launch.

(Hypersonic Accelerator  
Suborbital Test Electron)



# 46

Missions from  
Launch Complex 1,  
New Zealand.



# 4

Missions from  
Launch Complex 2,  
Virginia.



# 190

Satellites  
launched.



# 499

Rutherford engines launched.

Each Electron features 10 Rutherford engines,  
including nine on the first stage and a single vacuum  
optimized Rutherford engine on the second stage.  
Rocket Lab successfully flew a recovered  
Rutherford engine in 2023, hence 499.



# 7

Years and ~25 days  
between flights 1 and 50

### SATELLITES LAUNCHED BY ELECTRON HAVE ENABLED:



Communications



Earth Observation



National Security



Climate  
Science



Lunar  
Exploration



Research and  
Development



Rendezvous and  
proximity operations



Weather  
monitoring



Hypersonic  
suborbital testing

### ELECTRON CUSTOMERS





# 50 LAUNCHES 50 MISSION PATCHES

Every Rocket Lab launch receives a unique name and mission patch. Since launch is such a serious and complex business, we like to counter this with fun names and patches. So how do we settle on the names and designs? It's a team effort! For dedicated launches our customers get naming rights and for rideshares our team members compete to suggest the best name. Mission patches are designed in collaboration with our launch customers and generally incorporate symbolism, themes, and colors that are significant to them.

Mission patches are available on the Rocket Lab web store, but each one is limited edition so once they're gone, they're gone.



F1  
"It's A Test"



F2  
"Still Testing"



F3  
"It's Business Time"



F4  
"NASA ELaNu-19"



F5  
"DARPA R3D2"



F6  
"STP-27RD"



F7  
"Make It Rain"



F8  
"Look Ma, No Hands"



F9  
"As The Crow Flies"



F10  
"Running Out Of Fingers"



F11  
"Birds Of A Feather"



F12  
"Don't Stop Me Now"



F13  
"Pics Or It Didn't Happen"



F14  
"I Can't Believe It's Not Optical"



F15  
"In Focus"



F16  
"Return To Sender"



F17  
"Owl's Night Begins"



F18  
"Another One Leaves The Crust"



F19  
"They Go Up So Fast"



F20  
"Running Out Of Toes"



F21  
"It's A Little Chile Up Here"



F22  
"Love At First Insight"



F23  
"A Data With Destiny"



F24  
"The Owl's Night Continues"



F25  
"Without Mission A Beat"



F26  
"There And Back Again"



F27  
"CAPSTONE Moon Mission"



F28  
"Wise One Looks Ahead"



F29  
"Antipodean Adventure"



F30  
"The Owl Spreads Its Wings"



F31  
"It Argo's Up From Here"



F32  
"Catch Me If You Can"



F33  
"Virginia Is For Launch Lovers"



F34  
"Stronger Together"



F35  
"The Beat Goes On"



F36  
"Rocket Like A Hurricane"



F37  
"Coming To A Storm Near You"



F38  
"Scout's Arrow"



F39  
"Baby Come Back"



F40  
"We Love The Nightlife"



F41  
"We Will Never Desert You"



F42  
"The Moon God Awakens"



F43  
"Four Of A Kind"



F44  
"On Closer Inspection"



F45  
"Owl Night Long"



F46  
"Live And Let Fly"



F47  
"Beginning Of The Swarm"



F48  
"Ready, Aim, PREFIRE"



F49  
"PREFIRE and Ice"



F50  
"No Time Toulouse"





## 50 ELECTRON LAUNCHES THEN VS NOW

### LAUNCH COMPLEX-1

Completed in 2016, Launch Complex 1 in Mahia is the world's first private orbital launch site. It was home to our first Electron launch in 2017 and we've launched a total of 45 missions from the site since then (46 once we include No Time Toulouse). While it had everything we needed for those first few launches, LC-1 was sparse in the early days. Since that first launch we've added two 100K class payload processing cleanrooms for dual satellite processing, added a second launch pad, expanded the Range Control Center, added a Customer Launch Viewing Lounge and generally streamlined facilities and operations.

### LAUNCH PADS



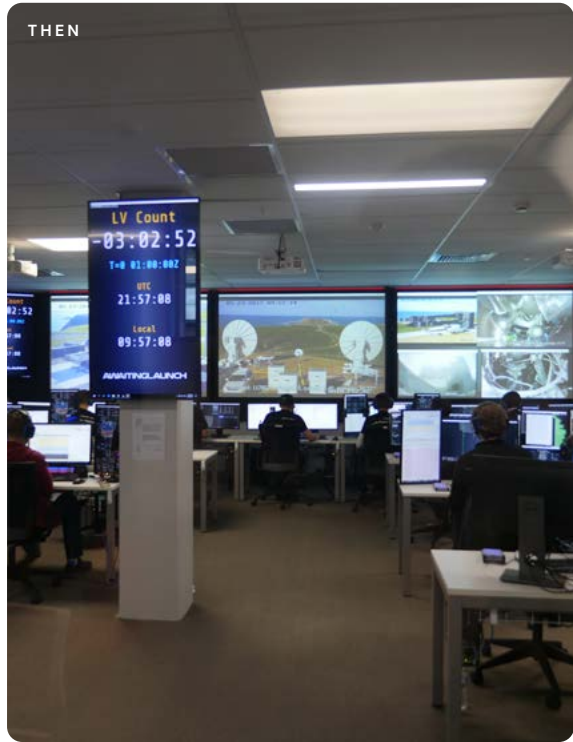
### RANGE CONTROL CENTER





# 50 ELECTRON LAUNCHES THEN VS NOW

## MISSION CONTROL



## ELECTRON PRODUCTION COMPLEX

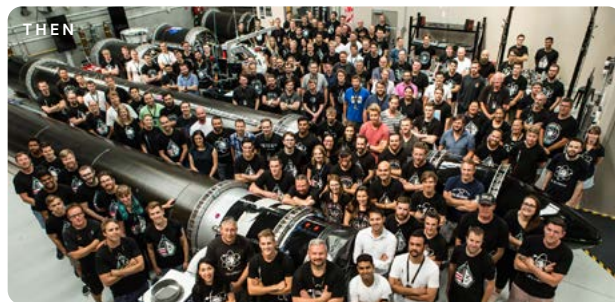




## 50 ELECTRON LAUNCHES THEN VS NOW

### TEAM

When Electron first launched we had around 150 team members. Today our team is almost 2,000 people strong across six U.S. states and New Zealand. In 2017 our team was almost exclusively working on Electron, but today we have dedicated Space Systems teams building and operating satellites and their components too, as well as team dedicated to developing, testing and launching Neutron.





# LAUNCH SITE OVERVIEW

Rocket Lab Launch Complex-1  
Mahia, New Zealand



'No Time Toulouse'  
will lift off from Launch  
Complex 1 on New Zealand's  
Mahia Peninsula.

An FAA-licensed spaceport, Launch Complex 1 can provide up to 120 launch opportunities every year. From the site it is possible to reach orbital inclinations from sun-synchronous through to 30 degrees, enabling a wide spectrum of inclinations to service the majority of the satellite industry's missions to low Earth orbit.



Located within Launch Complex 1 are Rocket Lab's private range control facilities, two 100K satellite cleanrooms, a launch vehicle assembly facility which can process multiple Electrons at once, and administrative offices.

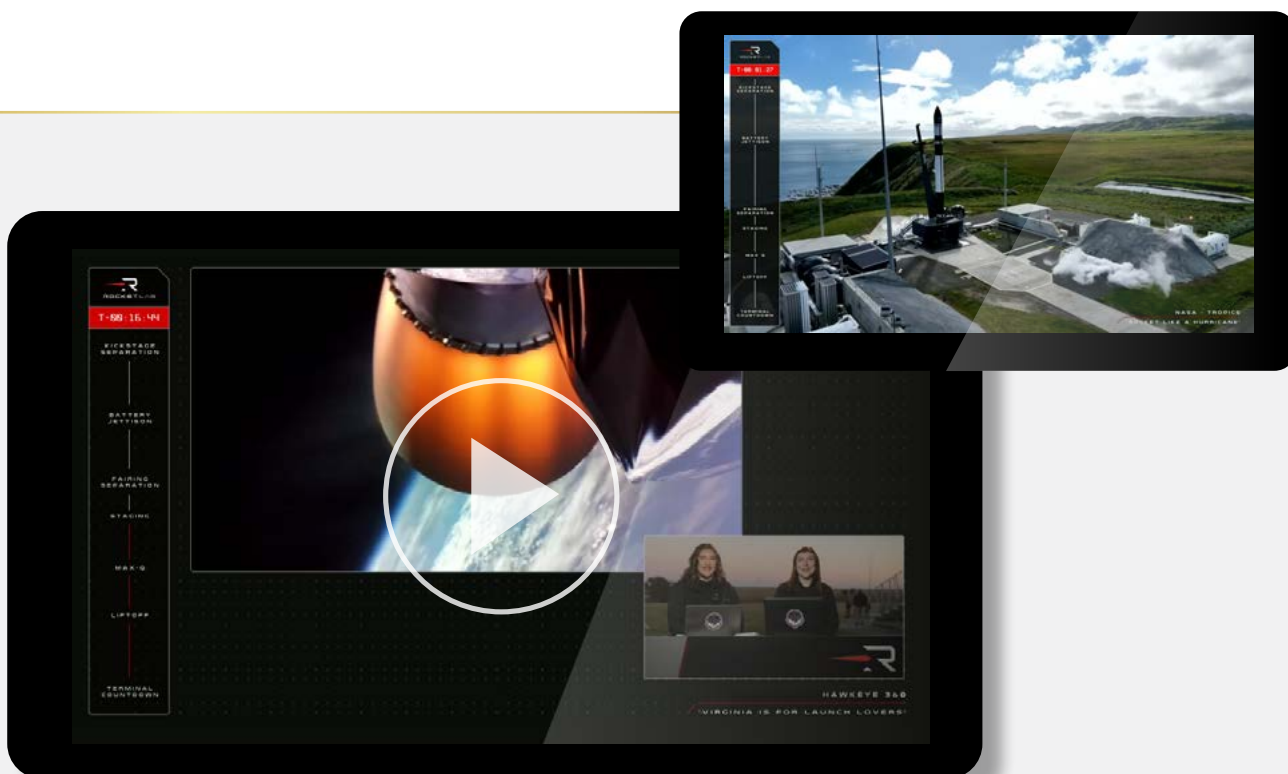
Operating a private orbital launch site alongside its own range and mission control centres allows Rocket Lab to reduce the overhead costs per mission, resulting in a cost-effective launch service for satellite operators.

In addition to Launch Complex 1, Rocket Lab operates an additional launch site, Launch Complex 2, at the Mid-Atlantic Regional Spaceport within NASA's Wallops Flight Facility on Virginia's Eastern Shore. Launch Complex 2 can support up to 12 missions per year.

By operating two launch complexes in two hemispheres, Rocket Lab provides customers with flexible, responsive launch opportunities.



# VIEWING A LAUNCH ONLINE



## LIVE STREAM

The live stream is viewable at:

[rocketlabusa.com/  
live-stream](https://rocketlabusa.com/live-stream)

## LAUNCH FOOTAGE & IMAGES

Images and footage of "No Time Toulouse" launch will be available shortly after a successful mission at:

[www.flickr.com/photos/rocketlab](https://www.flickr.com/photos/rocketlab)

## UPDATES

For information on launch day visit:

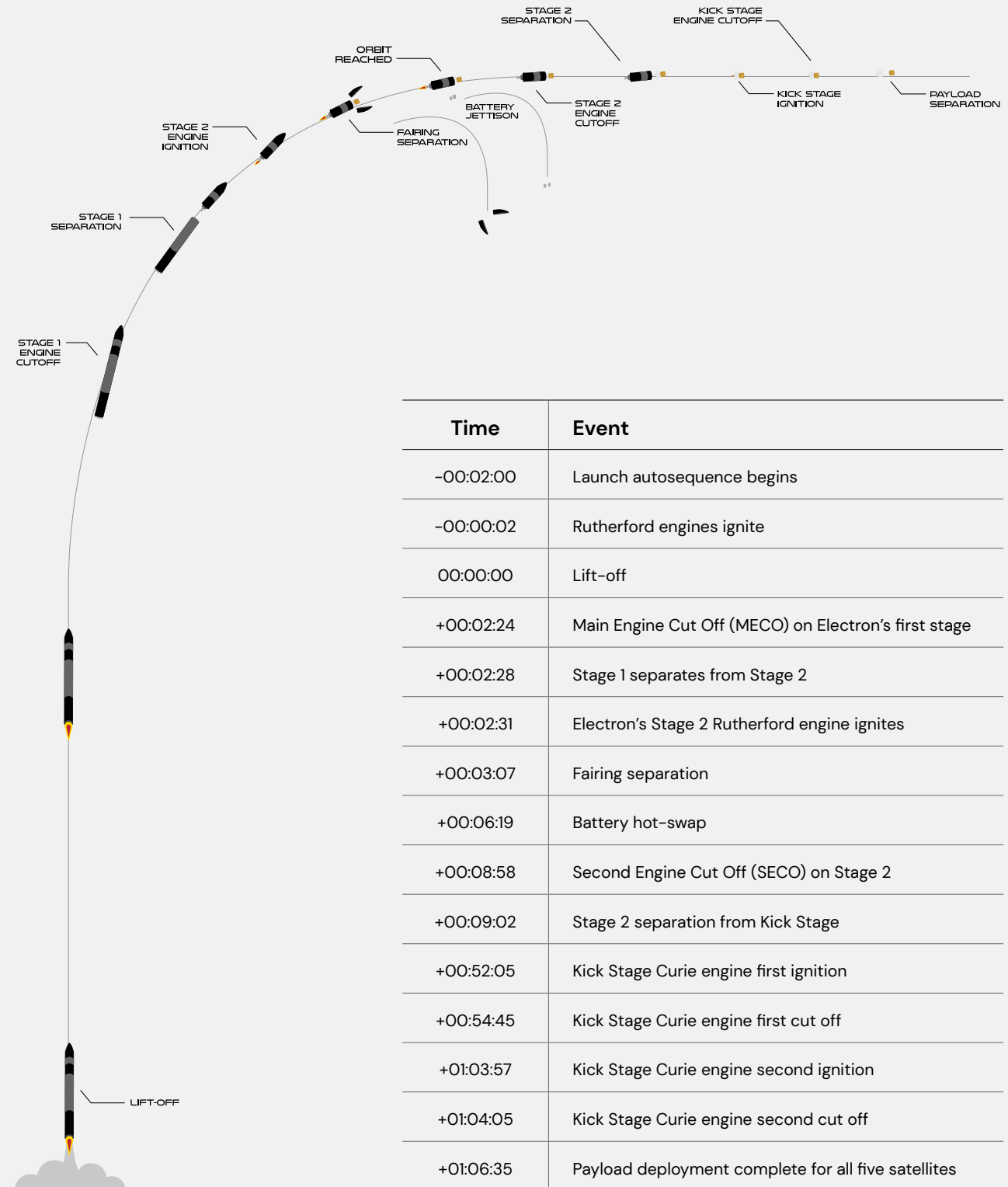
[rocketlabusa.com/next-mission](https://rocketlabusa.com/next-mission)

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# TIMELINE OF LAUNCH EVENTS



# ELECTRON LAUNCH VEHICLE

## OVERALL

### LENGTH

18m

### DIAMETER (MAX)

1.2m

### STAGES

2 + Kick Stage

### VEHICLE MASS (LIFT-OFF)

13,000kg

### MATERIAL/STRUCTURE

Carbon Fiber Composite/Monocoque

### PROPELLANT

LOX/Kerosene

## PAYLOAD

### NOMINAL PAYLOAD

320kg / 440lbm To 500km

### FAIRING DIAMETER

1.2m

### FAIRING HEIGHT

2.5m

### FAIRING SEP SYSTEM

Pneumatic Unlocking, Springs

## STAGE 2

### PROPULSION

1x Rutherford Vacuum Engine

### THRUST

5800 LBF Vacuum

### ISP

343 Sec

## INTERSTAGE

### SEPARATION SYSTEM

Pneumatic Pusher

## STAGE 1

### PROPULSION

9x Rutherford Sea Level Engines

### THRUST

5600 LBF Sea Level (Per Engine)

### ISP


311 Sec







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