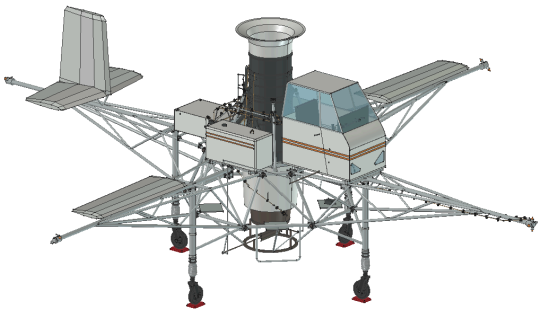
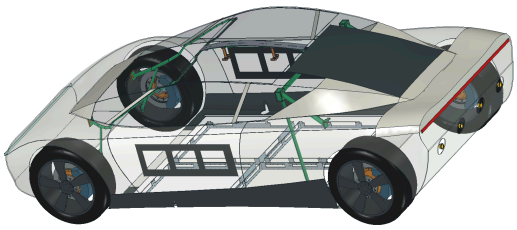
TEXTTOCAD
TEACHING AI TO MAKE THINGS

TURBOLET and Roadster Rocket

Two ways of leaving support. The historical test rig explored control in hover. The Roadster comparison uses observed Tesla stunts and separate Rocket simulations. Qualified cycle duration and cost per successful attempt remain OPEN.



TURBOLET · R5 museum model
Monino, 30 May 2013 · saved FreeCAD first-opening view



Roadster Rocket · R07 layout
Frozen working model from the adjacent project

22.95 kN
Weight for the 2,340 kg historical case

2.878–5.506 s
Kickflip · video PTS bracket at 1×

0 of 4
DEV25 · completed cases in the main 5 m series

Modes

State the contact and stable support criteria for each configuration. Keep first contact, stable dwell and visible ground roll as separate events.

Observed

Vertical takeoff and controlled hover

TURBOLET · flight trials

Historical stability and control test rig. Tushino demonstration on 20 July 1958.

Weight and thrust apply to the stated historical data only. Duration, authority and attitude traces are OPEN. T01

Outside proven scope

Museum display on four supports

TURBOLET · Monino R5

Both side panels are visible in the 30 May 2013 series. R5 wiring geometry and first opening were checked.

Flight state, mass, thrust and reference-date tail verification remain OPEN. T03

Observed

Airborne segment with visible rotation

Tesla · Kickflip

Visible clearance and rotation. The PTS bracket is 2.878–5.506 s at 1× playback.

Axis, thrust, cause of motion, capture speed, physical duration and touchdown loads are OPEN. R02

Computation stopped

Coupled N_2 run, 2 m gate

Rocket · DEV25

First contact at 1.770 s, 23.26°. The trace contains 29.5 ms after contact. Run stopped at the skirt speed limit.

The 0.5 s dwell on four wheels was not confirmed. The main 5 m series stands at 0/4. R03

Passed local computation

Local mechanics in prescribed attitudes

Rocket · DEV25

Four of five local mechanical trials met the 0.5 s dwell. Peak strut speed among those trials was 0.85671 m/s.

The dwell applies to the prescribed contact states. Transfer to the coupled mission remains open. R03

Unknown

Physical cycle from liftoff to rest

Rocket · AIR

DEV25 contains zero filled physical AIR state records. Successful duration and cost per second are OPEN.

The measurement matrix requires synchronized pressure, temperature, mass, volume and phase observation. R03

Forces and frames

Select a published thrust figure and mass for a static check. The figures omit installation losses, bleed, control, drag and reserves. Tesla observations are bounded on the clip playback timebase.

Static thrust-to-weight ratio

0.919

Simonov lists 2,150 and 2,835 kgf. Another publication cited in R4 gives 2,500 kgf. Rated, peak and limit figures retain their respective definitions. T04

Weight 22.95 kN



Thrust 21.08 kN



Tesla frame timestamps

2.878–5.506 s

The selected frames bracket the observed interval. Smoke obscures Kickflip contact. Time refers to playback. Physical duration remains OPEN.



32.074 s On support	**32.157 s** Visible clearance	**35.035 s** Airborne	**37.579 s** Roll confirmed

Kickflip · 24000/1001 fps

Technology

Vertical force and control

One vertical turbojet, exhaust vanes and tip jet channels.

Wheel, ramp and airborne phases have different force regimes. Video establishes visible motion.

Verification · Separate forces, moments and commands on one timebase.

Manoeuvre entry and support recovery

Vertical profile with support monitoring. Zero total reaction and clearance define liftoff.

Ramp includes approach and ramp contact. Kickflip and Encore show airborne rotation. Full landing telemetry is OPEN.

Verification · Rotation axis, first contact, strut speeds and stable support.

Repeatability

Configuration registry, measurement, phase criteria and independent force reference.

DEV25 links a repeat with common samples and records subsystem vetoes.

Verification · One case, two step sizes, first violated limit and a repeat with identical inputs.

Costs and files

Open the files locally. Full-cycle costs require an equivalent scope, initial and final state, rates by market and a count of accepted attempts. Unknown denominators leave cost per second and per success OPEN.

Passports, tables and calculation checks	**Three-market calculator**	**Formula workbook**
Assemblies, exploded views and 3D	**Evidence PDF**	**Editable Word report**
Narrated overview in English	**Narrated technical review in English**	**Data and PTS frame marks**
Release checks and hashes	**Cost verification PDF**	

Sources

T01 · Simonov, Sikorsky Readings proceedings · Printed pp. 10–14, test rig, schematic and Tushino demonstration.

T02 · SU120735A1 patent · Figs. 1–4 and description. Jet controls and exhaust control elements.

T03 · R5 configuration and aerodynamic surfaces evidence · Monino on 30 May 2013, P04, P05 and harness entries, linked to the final FCStd checksum.

T04 · R4 registry, thrust and engine variant · E01, E05, E17, E20. The 2,500 and 2,835 kgf values come from different publications.

R01 · Tesla Roadster product page · Manufacturer statements and separate Rocket trim. Test signals and conditions remain open.

R02 · Tesla Kickflip and local frame marks · The release data records presentation timestamps and the local copy checksum.

R03 · Roadster Rocket DEV25 · 21 Nov 2026. Coupled 2 m N_2 run, main 5 m series, local mechanics and AIR.

R04 · R07 native CAD views manifest · Frozen layout for figures. The public demonstrator has a separate configuration.

M01 · Methodology from the LLTV chat · LLTV-RRK-20261121 guide. Steps and checks were adapted to R5.

Release R1 · 21 November 2026 · TextToCAD local publication

R5 SHA-256 · 8dec4fb5fb4e9cbc9c56f564135508ea8b01f005a0eec5bc263108bea09b2b73