

Custom Precision Springs—Engineered for Aerospace Innovation

At Tokai Spring, we design and manufacture **high-precision springs** for **critical aerospace applications**—from rockets and satellites to asteroid exploration systems. Our springs support vital functions such as deployment systems, release mechanisms, and payload instruments, where reliability and precision are essential.

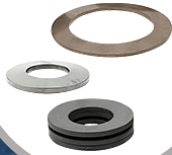
Specializing in **small-lot production** (1 to 5 pieces), we work with **complex designs** and **advanced materials** that many others cannot handle. Even without detailed drawings, we provide **full support** from concept to completion.

Through close collaboration with aerospace agencies and research teams, we help turn ambitious space **missions** into **reality**—with Japanese craftsmanship and proven performance.

Compression Springs



Disc Springs



Friction Springs



Conical Springs



i-MC Springs



Extension Springs



Flat Springs



Torsion Springs



Flat Spiral Springs



Volute Springs



Rectangular-wire Helical Springs



ROUND BARS & WIRES & SHEETS

-Special Steels

- Nickel alloy X750
- Nickel alloy 718
- Stainless steel
- Beryllium copper
- Titanium

-Spring Steels

- 51CrV4
- 55SiCr6-3



**MADE IN
JAPAN**

Contact us for more information>>>>

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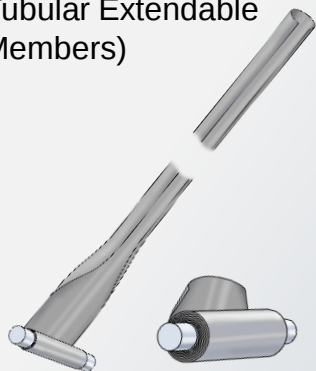
Website : <https://www.tokaibane.com/en/>





Our New Solutions in Satellite Development

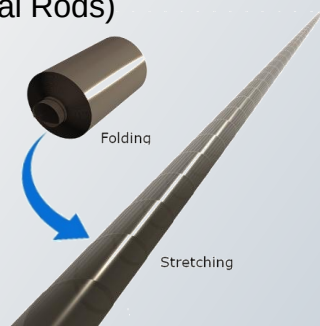
Lightweight STEMs (Storable Tubular Extendable Members)



As a trusted spring manufacturer, we specialize in **high-precision** metal STEMs engineered for demanding aerospace environments. Designed with **exceptional straightness** and **optimized for minimal weight**, our STEMs have demonstrated **ideal deployment performance** in space. With proven capabilities in extension lengths of up to **5,500 mm**, we can manufacture to your exact specifications—any length, width, or custom requirement.

Partner with us for **reliable, high-performance components** that meet the rigorous standards of the aerospace industry—without adding unnecessary mass.

Rigid SSRs (Space Spiral Rods)



Our innovative SSRs can extend up to **6,500mm** from their compact stowed position in an instant. Once extended, they offer **exceptional rigidity and structural stability**, outperforming traditional STEM designs in terms of **strength and stiffness**.

Ideal for applications including:

- Dipole Antennas
- Deployable Panel Booms
- Attitude Control Systems



Expandable Antenna
Mounted on CubeSat



Telescopic Boom for Deploying
Panels and Membranes on
Small Satellites



Track record of general metal springs

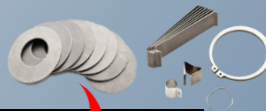
Springs for
Fairing
Mechanism



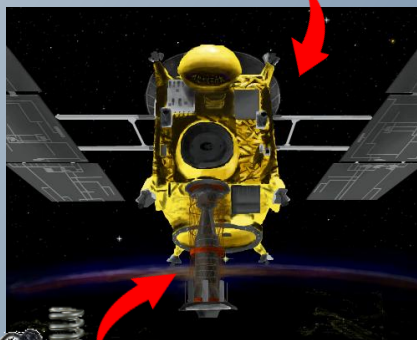
Springs for
First-Stage Engine
Separation Device



Springs for
Astronomical
Telescope



Springs for Rocket
Engines' Valves



Springs for
Sampler Mechanism



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