

Group de Bruijn

Precision mechatronics:
*design principles for the next
generation of high-
performance systems*

We design high-performance precision mechatronic systems, derive their fundamental principles, and apply these across domains.

Our approach

Our research rests on three pillars, with hardware at the core:



Design and development
of high-performance systems and scientific instruments



Fundamental mechatronics
design rules for mechanical and mechatronic design

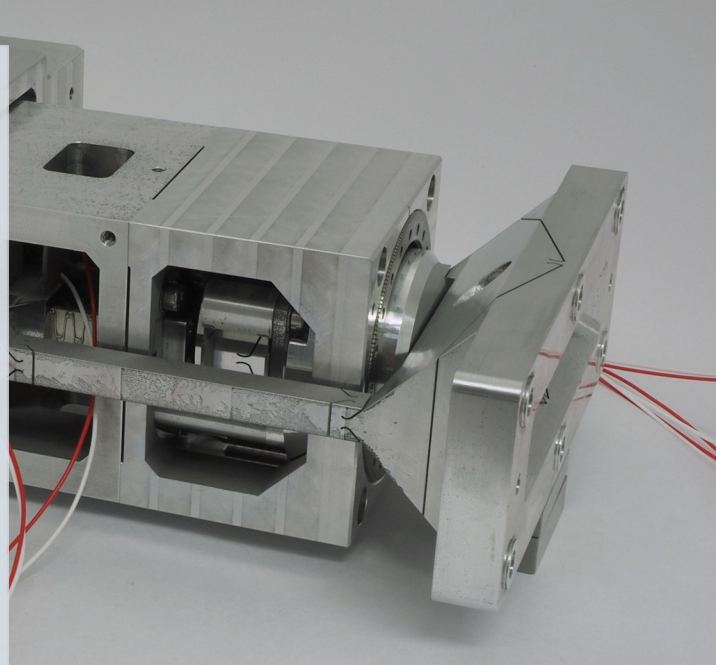


Cross-boundary and multiphysics
applying mechatronic principles in other domains



Hardware realization building and validating prototypes in our lab

Driven by application, we first truly understand the problem before designing and validating hardware-based solutions, in close collaboration with industrial partners.



Featured projects

Some of our ongoing projects include:



Deformable substrate table
Piezoelectric table for nanometer wafer shape control.

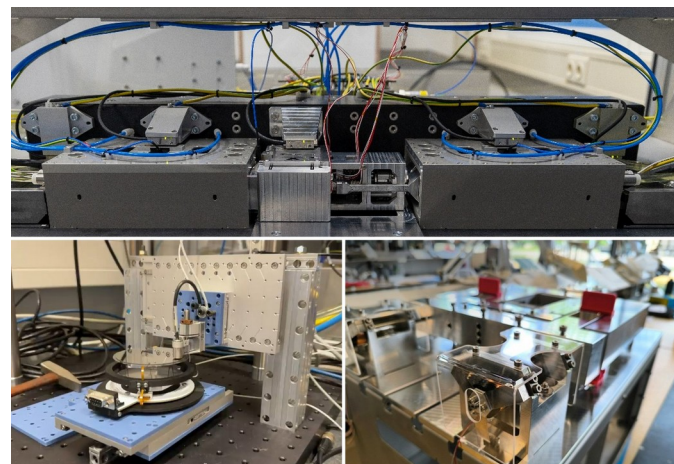


Inerters in high-tech systems
Widening the passive toolbox for increased dynamic performance.



Fluid-mechatronics
Active noise control in cooling water circuits.

...and many more!



Want to know more?

Reach out to
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