



Smart soft gripping for the next generation of automation

Why it matters: Many automation tasks still fail when products or components are fragile, flexible, irregular, or contact-sensitive. SensiFlex reduces damage, failed picks, downtime, and integration complexity.

SOLUTION

A soft gripper for cobots and robotic arms that combines compliant geometry with embedded sensing for high sensitivity adaptive gripping, grip-state awareness, and closed-loop control.

CORE ADVANTAGES

- Gentler handling of delicate and deformable parts
- Real-time contact/grip sensing and slip awareness
- No need for external sensing and fine tuning
- Faster adaptation to new SKUs and use cases
- Scalable, customizable, and SME-friendly automation

APPLICATIONS

- Agri-food and delicate produce handling
- Industrial quality control and component testing
- Handling and insertion of flexible technical parts
- Fragile-product logistics and delicate pick-and-place

CURRENT STATUS

- TRL 5: functional prototype validated in relevant environment
- Prototype integrates soft compliant gripping and embedded sensing
- Next step: MVP and industrial pilots to reach TRL 6-7

INDUSTRIAL INTEREST

- Cerfundão – fruit-packing and delicate produce handling
- IBER-OLEFF – robotic quality control and component testing
- Mecalbi – heat-shrink sleeve handling and insertion
- GrowSkills – cobot integration
- Recreus – Advanced applications for TPU and conductive TPU material

BUSINESS MODEL

- B2B sale of gripper units
- Customization and engineering services
- Pilot and validation packages
- Future licensing to integrators, OEMs, and machine builders

WHAT WE ARE LOOKING FOR

Strategic support, pilot partners, and investment to bring SensiFlex from TRL 5 to TRL 9 and accelerate commercialization.

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