

Case study – Effortless Gel injector for Aesthetic application



Project

Dermal filler for aesthetic surgery

Low volume and **high viscosity** controlled injection

Effortless and automatic gel injector

Challenges

- **Intradermal injection** of a very **viscous gel - 5000Pa.s**
- **Low volumes** (μ doses)
- Injection impossible through a 30G needle
- **Hard to inject** leading to repetitive stress injury (thumb tiring, tendonitis)
- Need to **control dosage** to avoid dosing errors related to the injection
- Keep surgeons gesture and manual sensitivity

Achievements

Drug injection	Force (N)	Current practices	EVEON technology	Comparison	Benefits
		Force $20N < F < 100N$ (manual)	Force $0N < F < 5N$	⇒ Reduced by 20 times	Automated, simple, fast and effortless administration for medical staff



Low injection force

→ 0 to 5 N

→ Reduced by 20 times



Manual sensitivity

→ Force sensor, control law



Precise dose

→ Repetability + Reproducibility-Doses < 30 μ L

Benefits



Larger market now accessible to beginners and unexperienced practitioners



Gain **customers loyalty** thanks to precise and easy to use injector