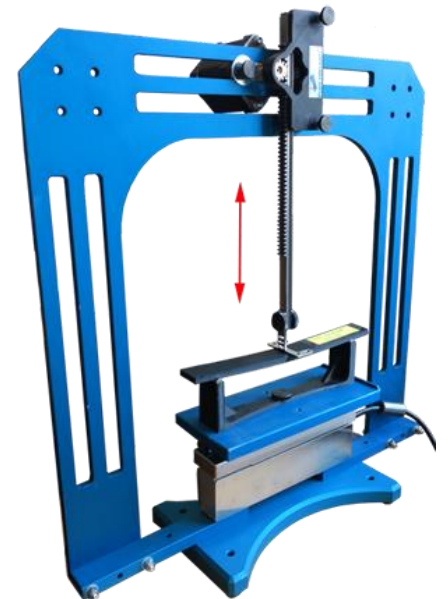




ForceBoard™ - Desktop friction, scratch, wear, tensile/compression and fatigue testing system with full 2D load sensing capability



Hardware



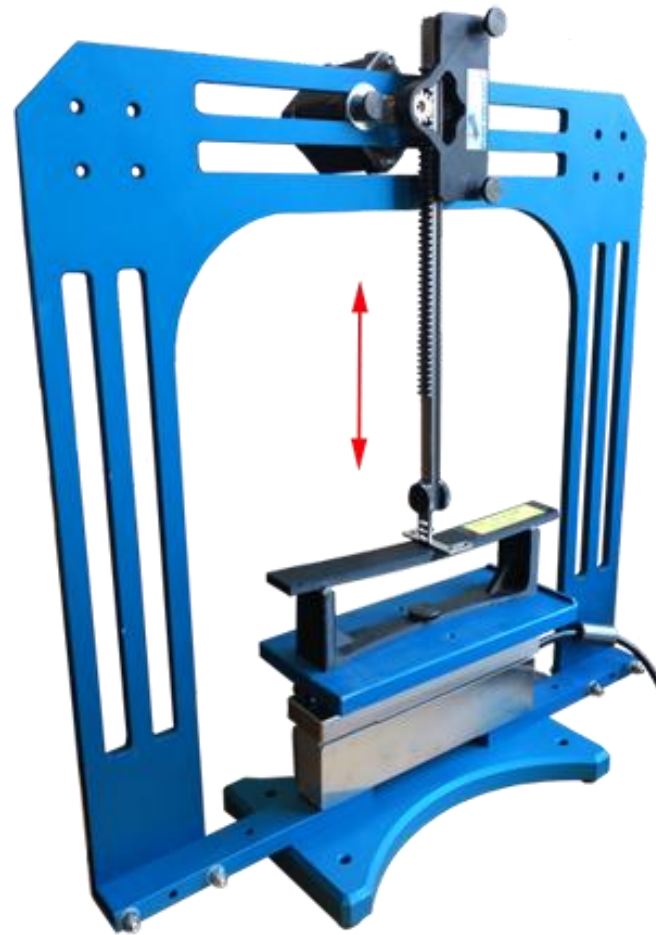
ForceBoard™ System



170mm / 6.7inch travel

- **Full 2D** force sensing
- Horizontal applications (friction, scratch, linear wear, horizontal adhesion, horizontal tear)
- Standard load capacity: **100N** vertical direction, **50N** horizontal direction
- Portable, USB powered and overload protected
- No maintenance requirements, built in calibration
- Materials: Anodized aluminum & stainless steel
- Outer dimensions: 300 x 300 x 100mm, total weight ~2.3kg / 5lb

ForceBoard™ MultiSystem



- **Full 2D** force sensing
- Vertical & Horizontal applications (friction, scratch, linear wear, tensile, compression, fatigue, adhesion)
- Standard load capacity: **100N** vertical direction, **50N** horizontal direction
- Portable, USB powered and overload protected
- No maintenance requirements, built in calibration
- Materials: Anodized aluminum & stainless steel
- Outer dimensions: 400 x 400 x 100mm, total weight ~2.3kg / 5lb

ForceBoard™ Wear Tester



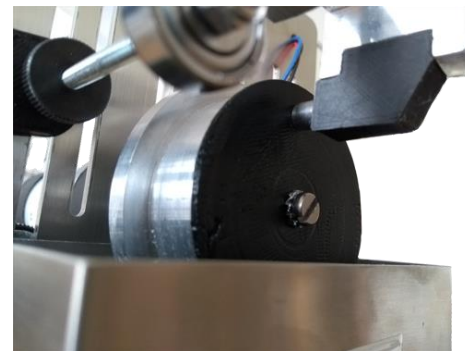
CE FC RoHs

- Block vs ring
- Pin vs disc
- Lubrication tray included
- Hanging weight and spring loaded



ForceBoard™ Wear Tester is a very cost efficient and easy to use **block on ring** and **pin on disc** wear and lubrication/additive tester with real time friction force measurement and friction data recording for any period of time with speed controller (up to 220rpm), speed recording and wear sensing (0.01mm resolution) with a 0.6Nm DC motor. Heating can also be added.

Rotating carrier component which connects to you rotating test sample can easily be made to customer's specification via high precision CNC machining.



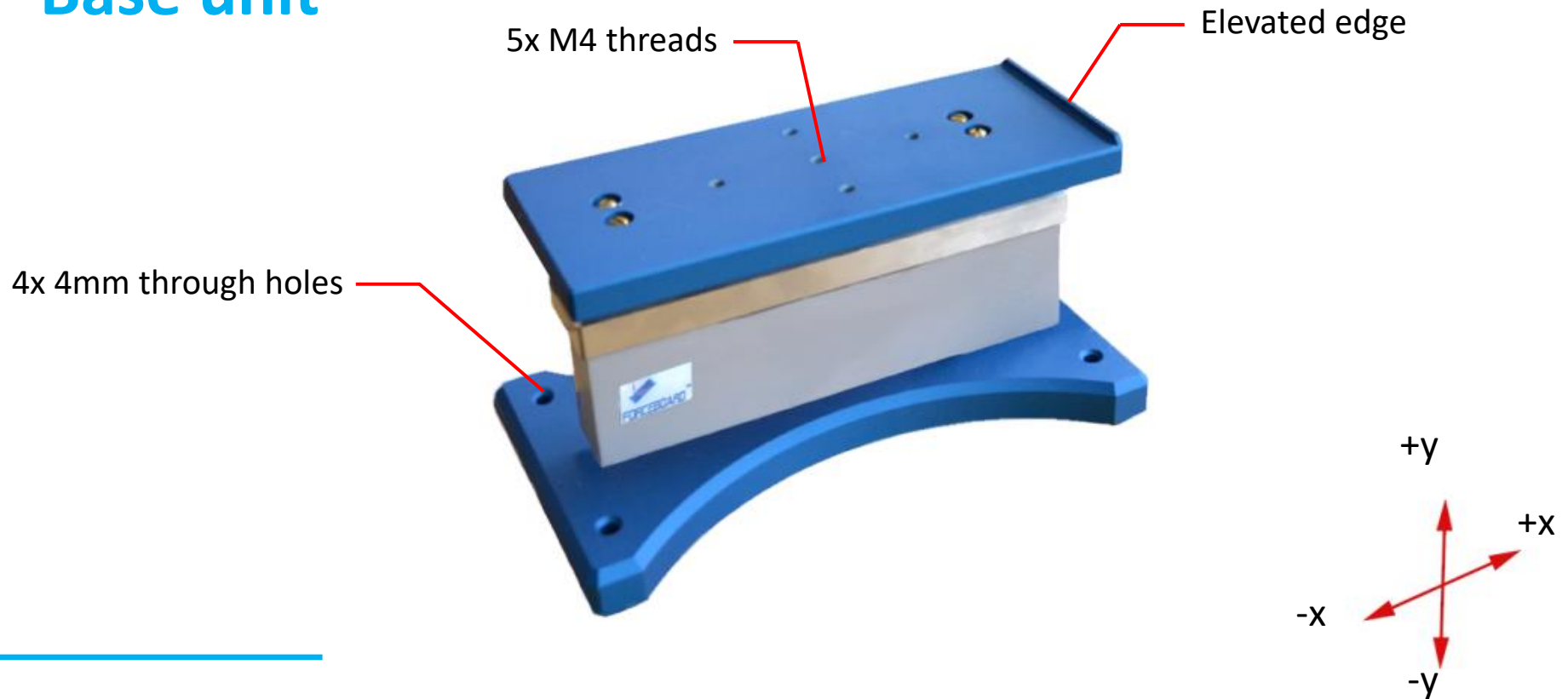
ForceBoard™ Tactile Tester



- **World unique functionality**
- Built in finger position tracking and full 2D force sensing
- Standard load capacity: **50N** vertical direction, **10N** horizontal direction
- Portable, USB powered and overload protected
- No maintenance requirements, built in calibration
- Materials: Anodized aluminum & stainless steel
- Outer dimensions: 300 x 130 x 100mm, total weight 1.7kg / 3.8lb

ForceBoard™

Base unit



- **Patented 2D (+/-x, +/-y)** force sensing
- Standard load capacity: **100N** vertical direction, **50N** horizontal direction (capacities can be modified)
- Portable, USB powered and overload protected
- **Zero** maintenance requirements
- Materials: Anodized aluminium & stainless steel
- Outer dimensions: 180(l) x 110(w) x 100(h) mm, total weight 1.6kg / 3.5lb

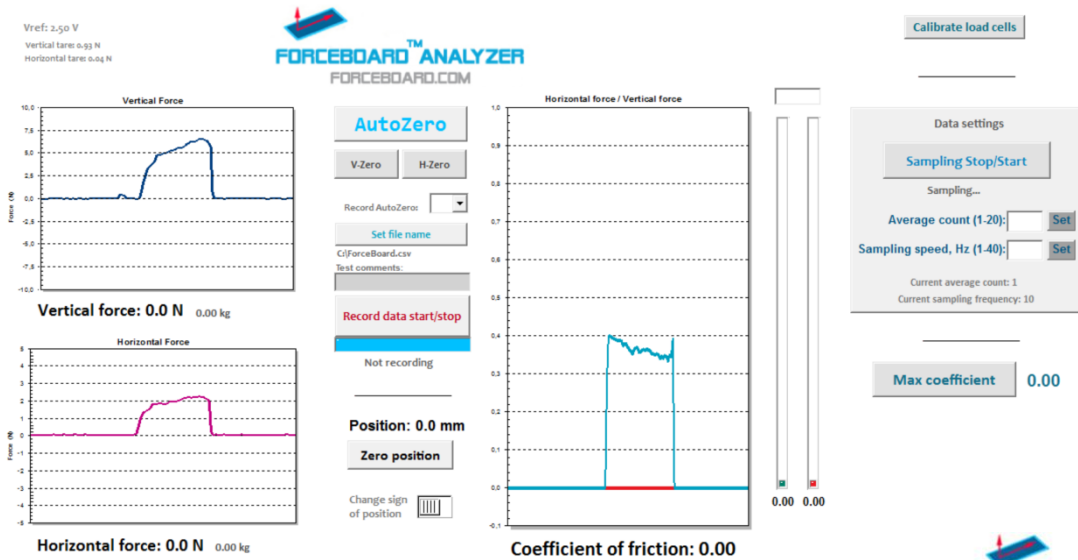
Software

Note: If you have special requests on the software we can solve that for you.

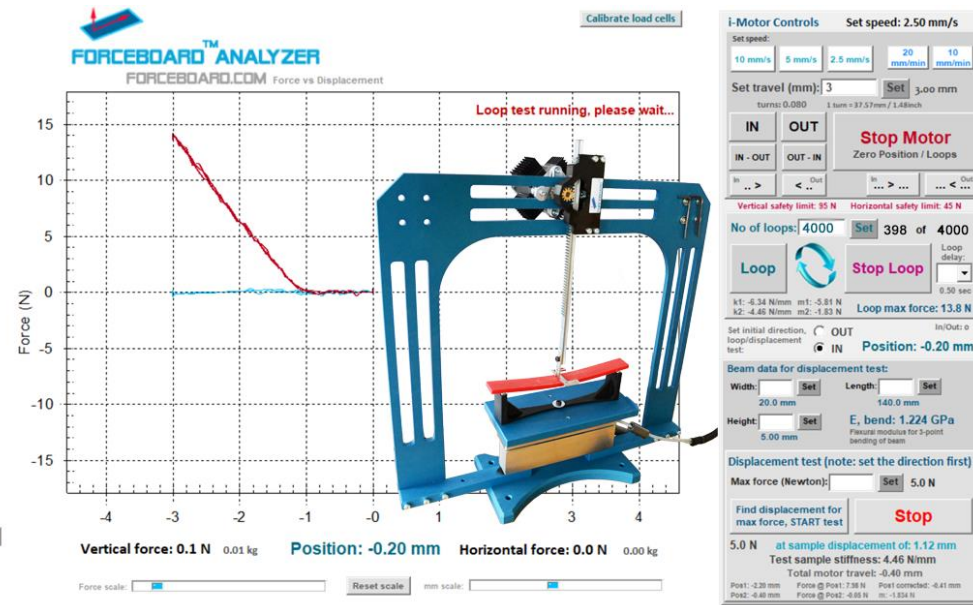
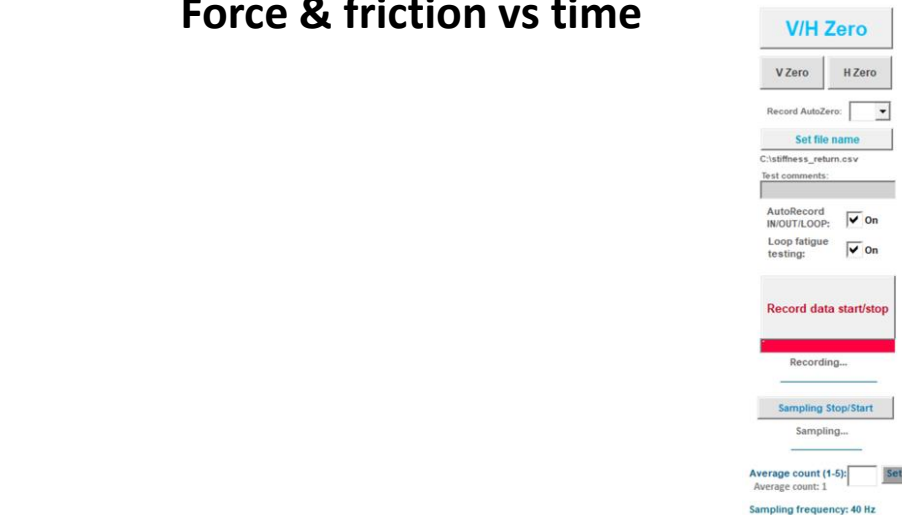
ForceBoard™ Analyzer

Software available in 2 versions!

- Adjustable sampling frequency
- Adjustable averaging
- Record data to Excel or Matlab
- Built in load cell calibration
- Open interface
- Can upload results to server



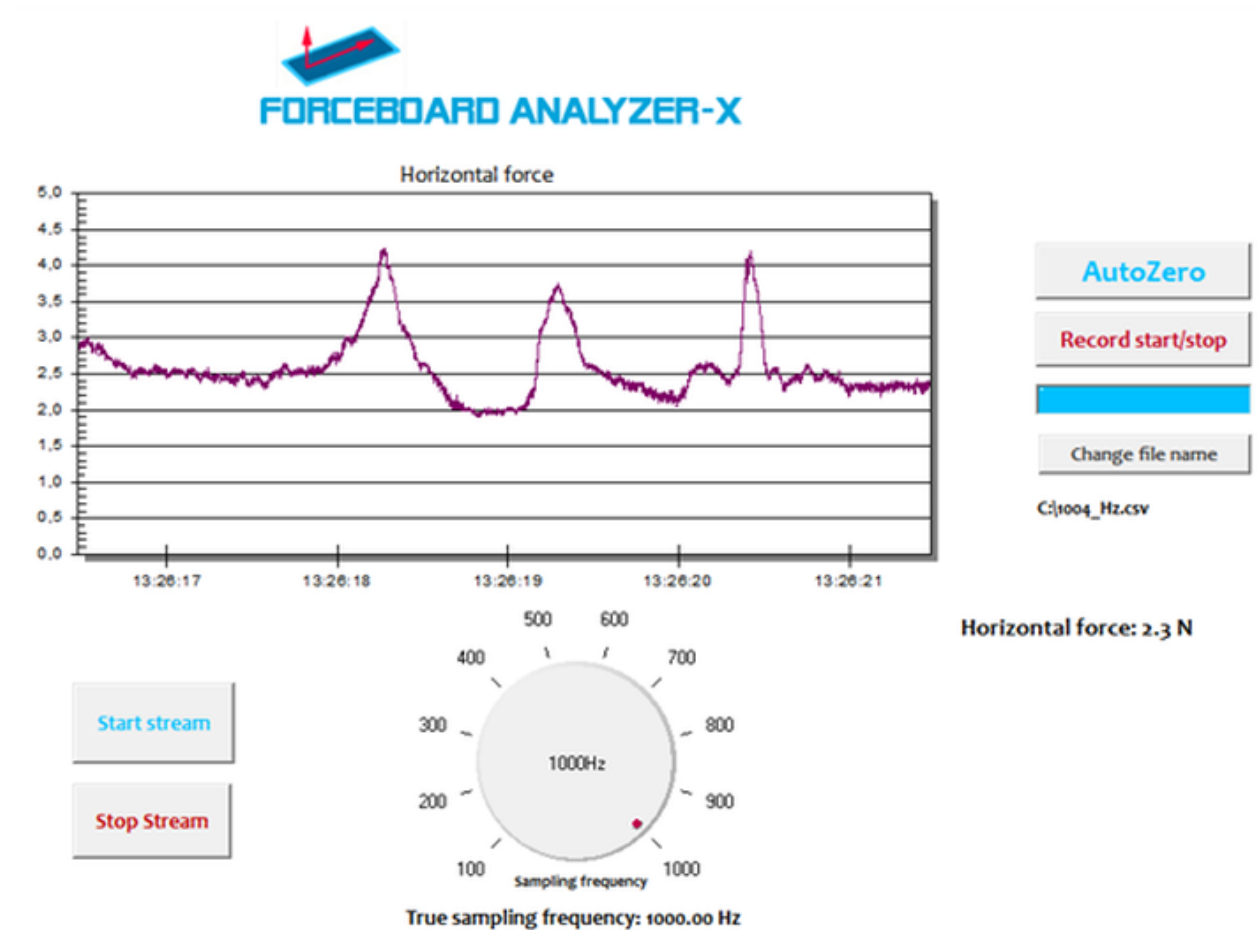
Force & friction vs time



Tensile, compression & cyclic load testing

ForceBoard™ Analyzer-X

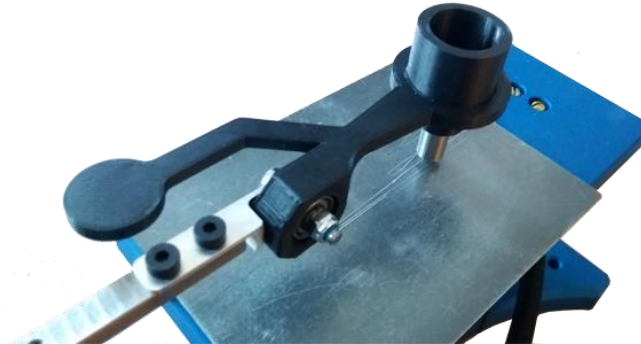
Software for high speed recordings in the horizontal direction



ForceBoard™ Accessories



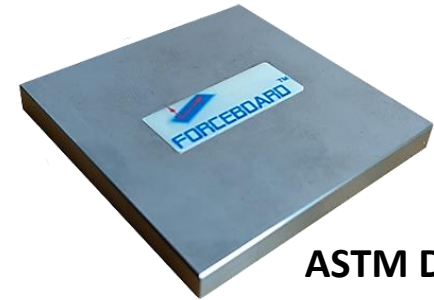
Multi-Gripper (delivered with [i-Motor](#))



Pivot loading arm for friction, scratch & linear wear testing



3 point bend fixture for [flexural modulus testing](#)



ASTM D1894 steel weight for [friction testing](#)



Protective case



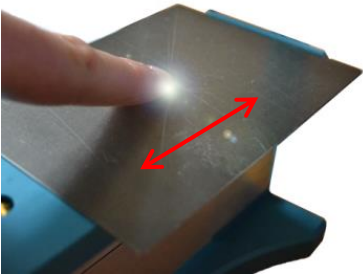
HRC-3 Rockwell Diamond probe, 200μm tip radius for [scratch testing](#)



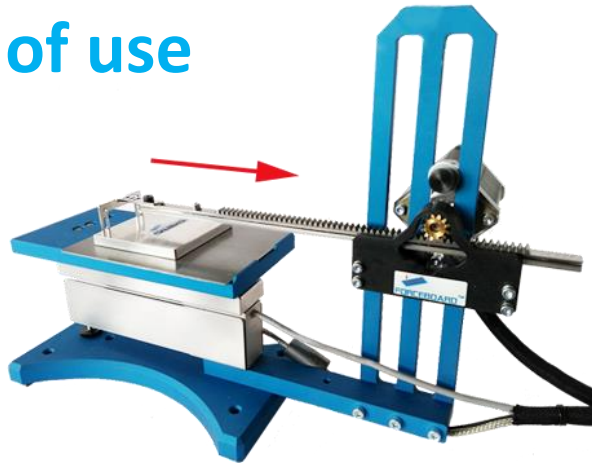
Powerful and flexible computer with pre-installed programs and live support

Areas of use

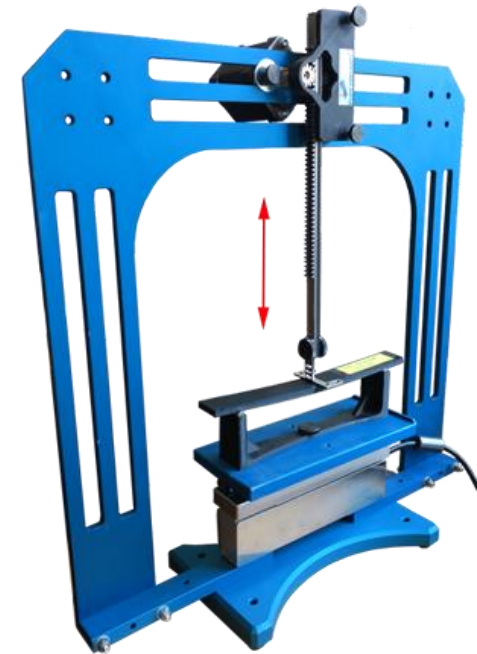
ForceBoard™ areas of use



Tactile friction



Static / dynamic friction



Tensile / fatigue



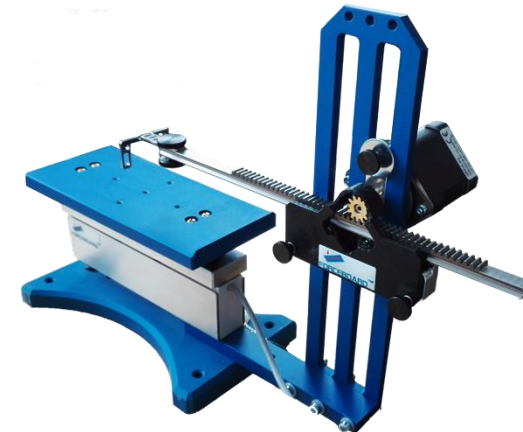
Rotating wear /
lubricants



Scratch / linear
wear



Torque



Programmable motion

Friction testing (static / dynamic)

General 2D force measurements

Tensile testing (0 to +/- 100N)

Three point flexural testing

Wear testing (block-on-ring) + linear

Torque testing

Tactility & tactile friction testing

Surface coating optimizations

Push / Pull testing

Adhesion testing (0-180 degrees)

Position measurement / sensing

Portable live testing / experiments

Catheter testing

Syringe testing

Material / tissue tolerance to loading

Biomechanics & Biotribology

Fatigue testing

Material flexibility / compliance

Contact modeling

Parameters for finite element simulations

Physics / Mechanics teaching

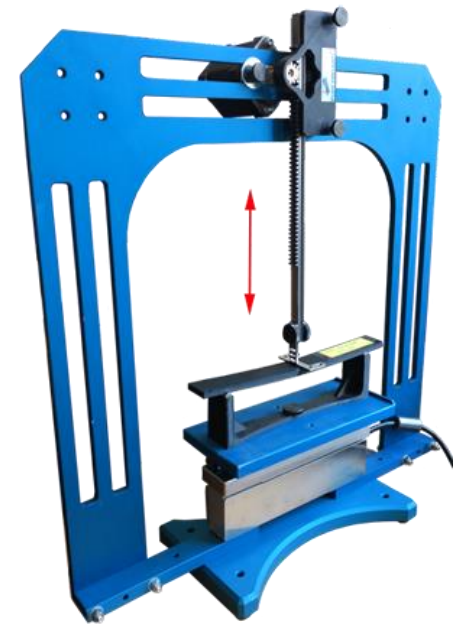
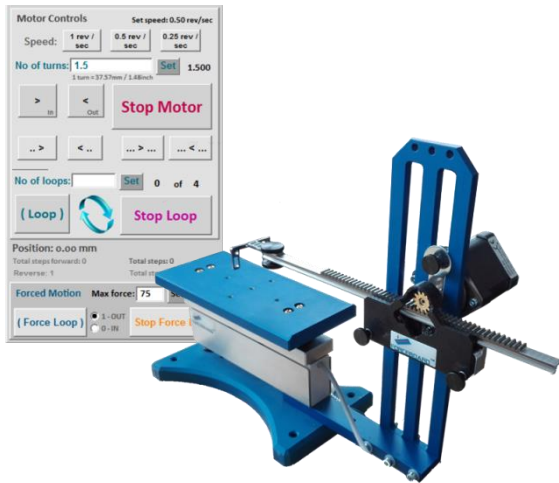
Scratch testing

Custom Test Automation applications

Programmable test sequences



Data communication interface		USB 2.0
Power supply		100-240 VAC / 50-60Hz, 2.5A max
Power supply cable		C13 (with ground connector pin)
Weight	ForceBoard	1.6kg / 3.5lb
	i-Motor	0.5kg / 1.1lb
	Frame	0.2kg / 0.45lb
	RigidFrame	0.8kg / 1.8lb
	Electrical box (delivered with i-Motor & Wear tester)	2.1kg / 4.6lb
	Wear tester, block on ring & pin on disc	10kg / 22lb
Dimensions	ForceBoard with RigidFrame [mm]	360(W) x 380(H) x 110(D)
	Electrical box [mm]	230(W) x 60(H) x 220(D)
Operating temperature		0-40°C / 32-104°F
Operating environment		Office or laboratory use, no condensation



[Contact us](#) or your local representative and order today!

www.ForceBoard.com