

## Computerized Servo Control Universal Testing Machine



### Introduction:

Computerized Servo Control Universal Testing Machine is a material testing machine that combined with the electronic technology and mechanical transmission, it has accurate load speed, range of force measurement, has high accuracy and sensitivity for the load, displacement measurement and control, This machine is simple to operate, simple structure, it can be directly placed on the testing table for test, especially suitable for controlling quality in production line This series of machine is mainly applied to test the non-metallic and metallic materials which the load up to 30kN.

### Functions:

Desktop Computerized Servo Control Universal Testing Machine can be test all the material in tensile, compression, bending, shear, peel, tear, two-point or long travel extensometer and others for control products quality.

### Features:

1. The surface of appearance using electrostatic spray, simple and generous, multi-functions and economy.
2. Variant kinds of units: N, g, kg, kN, lb and etc
3. Single measurement, it can record the max force of tension and compression in both directions, automatic or manual cleared to zero.
4. The system would shut down if overload or over-trip.
5. Structure of single / double column is beautiful, sophisticated and economy.

**Meet Standard:**

- TAPPI T-494, TAPPI T829, ISO 1924, ISO12625-4, AS/NZ1301.448s, BS EN ISO1924-2, CPPA D34, DIN 53112, SCAN P38
- ASTM D1683, ASTM D412, ASTM D4964, ASTM D5733 / 5735, BS 3320
- (Breaking Strength) ISO13934.1, ASTM D5035
- (Tear Strength) ISO13937.2, ASTM D2261
- (Single Yarn Strength) ISO2062, ASTM D2256
- (Seam Slippage) ISO13936.1/2, ASTM D434
- (Tensile) ASTM D828, ASTM D638, ASTM D882, ASTM D6319, ISO 1924, TAPPI T 494, EN 455-2
- (Peel) ASTM D3330, D1876
- (Tear) ASTM D1938
- (Seal) ASTM F88
- (Bond) ASTM F904
- (Puncture) ASTM F1306, ASTM D4032, ASTM D120, ASTM F1342, ASTM D5748

**Applicable Industry:**



Computerized Servo Control Universal Testing Machine is widely used in wire and cable, hardware, electronic and electrical equipment, packaging, printing, medical equipment, auto parts, textiles and leather, clothing, shoes, rubber and plastic products, colleges and universities; research laboratories; inspection arbitration, technical supervision departments and many other industries, it is the basic equipment for quality management and physical tested.


**Specification:**

Model	EI-UT1	EI-UT5	EI-UT10-30
Load Structure	100kgf	500kgf	3000kgf
Load Cell Capacity	10, 25, 50, 100kgf	10, 25, 50, 100, 250, 500kgf	10, 25, 50, 100, 250, 500, 1000, 2000, 2500kgf
Typr of Machine	Bench top	Bench top / Floor type	Floor type
Accurate of Force	±0.5		
Measuring Range	0.2% ~ 100% Full Scale		
Measuring Accuracy	±1%		
Resolution	Max. load 1/200000, constant the resolution		
Load Sensor	Basic configuration one sensor or two		
Vertical Test Space	600mm	800mm	

Testing Speed	0.01 ~ 500mm/min		
Accuracy of Displacement	±1%		
Gauge length of Elongation	-	Min span :10mm, Max range of deformation 800mm Extended deformation span: 20mm, 25mm, 50mm, 100mm,	
Accuracy of Elongation	-	±1%	
Safety device	Upper and lower travel limit protection, overload protection by software		
Control Panel	Test, Stop, Zero, Fast / slow speed control buttons Dual load sensor switch button, pneumatic grips mechanism controller		
Automatic Return	Manual or automatic operation, after the test, crosshead return to initial position with the highest speed by manual or automatic operation		
Dimension	400(L) x 350(W) x 1000(H)mm	660(L) x 480(W) x 1800(H)mm	970(L) x 570(W) x 2150(H)mm
Rate Voltage	240V, 50Hz		
Rate Power	200w	400w	750w
Weight	Approx. 80	Approx. 120kg	Approx. 300kg

**Standard Accessories:**

Name	Description	Quantity
Load Frame	100, 500, 1000 or 3000kg	1 set
Load cell	High Precision Performance Celtron, USA S-type or low profile Load-Cell 	1 set
Motor	High Precision Performance Panasonic, Japan AC Servo Drive with Servo Motor 	1 set
Speed reduction	Reducer, Gear Drive + Belt	1 set
Software	Professional TCP operating software - Advance version, Interface Card, LAN Data Cable, Perform Tensile Test, Compression Test, 3 Point Bending Test, Peeling Test, Adhesion Test, Shearing Test, Tearing Test & Machine Compliance Test	1 pendrive
Grips fixture	Appropriate tensile, compression or other fixtures	1 set
Accessories	Solid Bench with Castor	1 set (EI-UT5)
Tool kits	Maintenance tool	1 set
Manual	Operation and software user manual	1 set

<p style="text-align: center;">NEW</p> <p>High performance Computer System</p>	<p>OS: Window 11 Pro CPU: i3 RAM: 8GB DDR5 Memory SSD: 512GB Networking: Integrates LAN Keyboard: USB Keyboard Mouse: USB Optical Mouse 21" Color LED Monitor Canon Color Printer</p> <div style="text-align: center;">  </div>	<p>1 set</p>
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**Software Feature:****1. The software description about desktop computer type servo tensile testing machine**

- a. Function of standard modular: provide users with the necessary applications to the test, covering GB, ASTM, DIN, JIS, BS.... And other testing standard specification.
- b. Tested product information: provide users with the data to set about the products, one time to input and re-use permanently for improving the accuracy, the data can be corrected by the formula automatically.
- c. Dual-report editor: provide users with the reported format that users choose (testing program add Word/ Excel reported format, Extend the previous single pattern of statements)
- d. The data's unit of length and force can be exchanged, unit of force is T, Kg, N, kN, g, lb, unit of length is mm, cm, inch.
- e. Auto-optimization of graphic scale, display the best measurement of graphics. It can test the moving exchange in graphics; it has the load –displacement, load – time, displacement – time, stress – strain load – 2 points extending maps and lots of graph compared.
- f. Test results can be export to output in EXCEL, WORD & PDF format.
- g. Testing result can be automatically preserved or manual preserved, after the test, it can automatically calculate the most strength, up and down yield strength, loop method, best method, non-proportional extended strength, tensile strength, compressive strength, tensile strength at any point, constant load extension, elastic modulus, rate of elongation, peel range of maximum force, minimum force, average force, total energy, bending modulus, x% load in break displacement, load x% in break displacement and so on. The test data can be stored in any disk.
- h. Software has a capability that can output the before data.

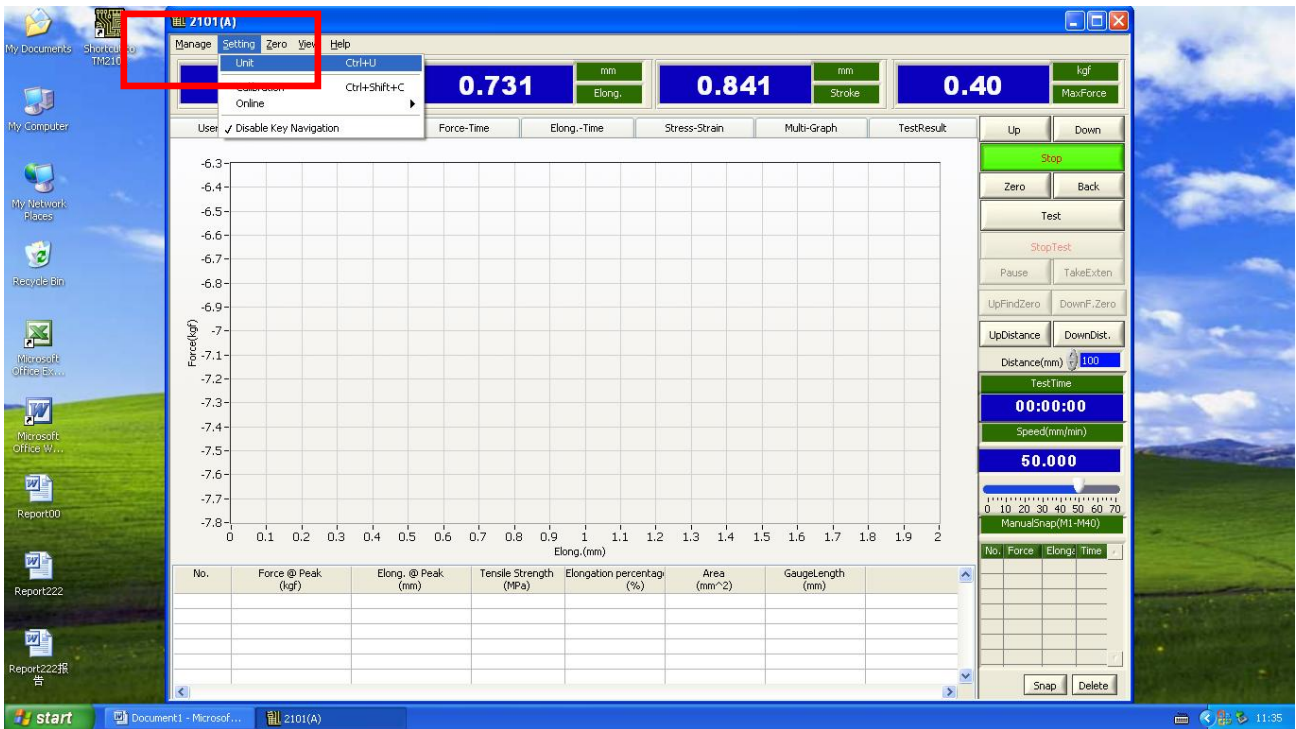
## 2. Items can be tested in the Desktop computer type servo tensile testing machine

Common items: (display data and calculation)

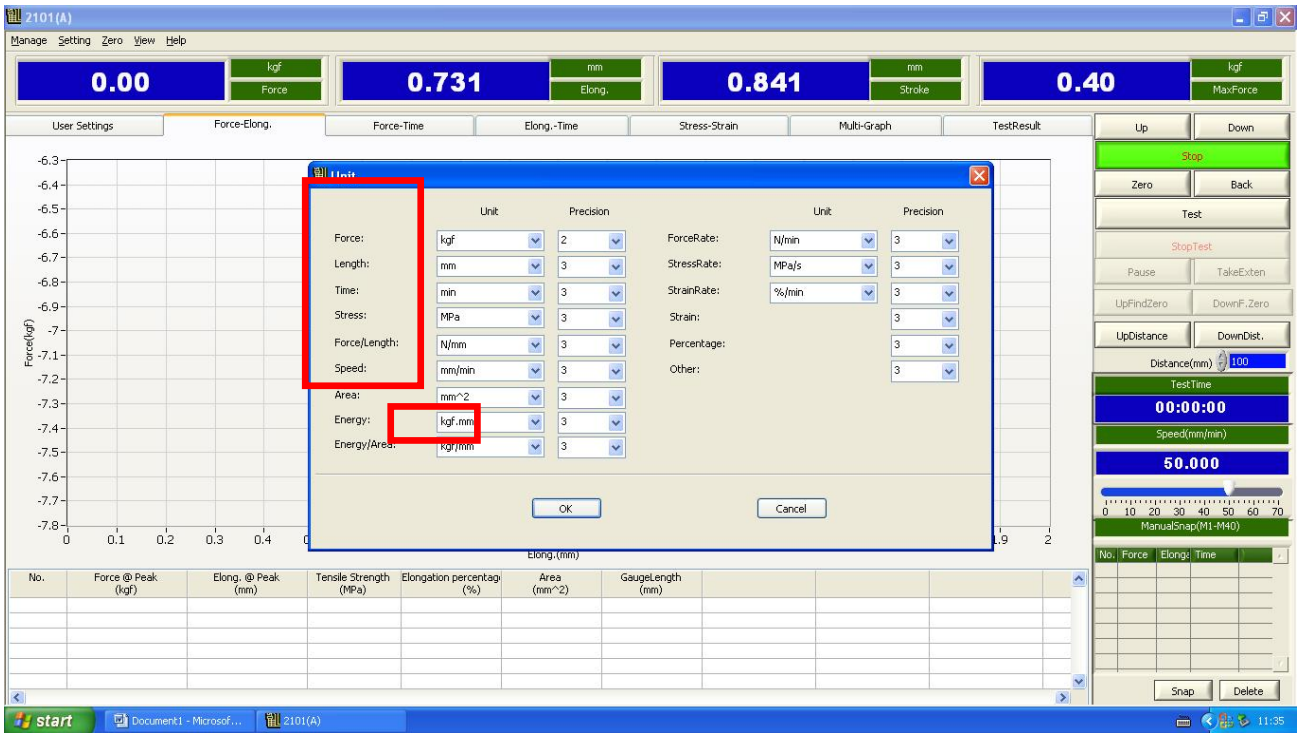
- Tensile stress
- Tensile strength
- Rate of elongation at break
- Fixed stress
- Rate of stress at break
- Stress Strength
- Tear strength
- The value of force at any point
- Rate of elongation at any point
- Pull-out strength
- Force of adhesion and the peak of force

### Software operation interface

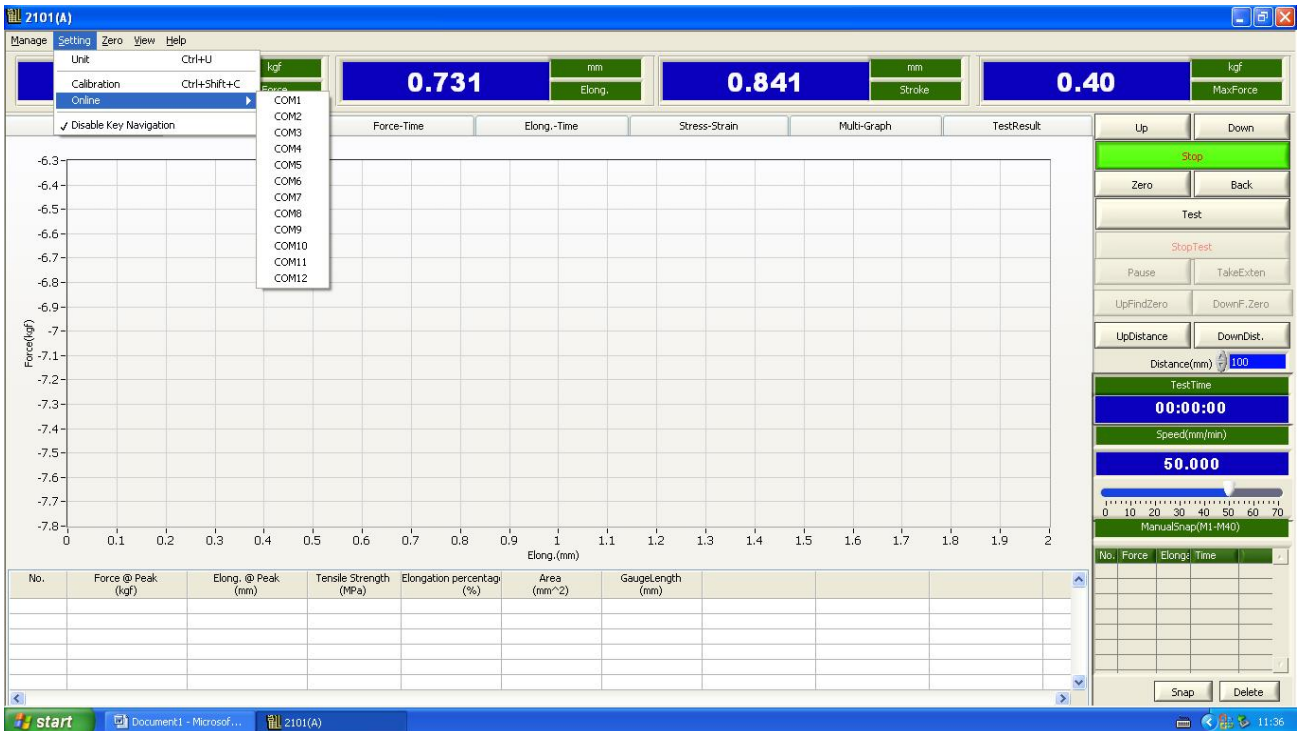
#### 1. Choose units measure, setting==>unit



Variant with units of measurement:

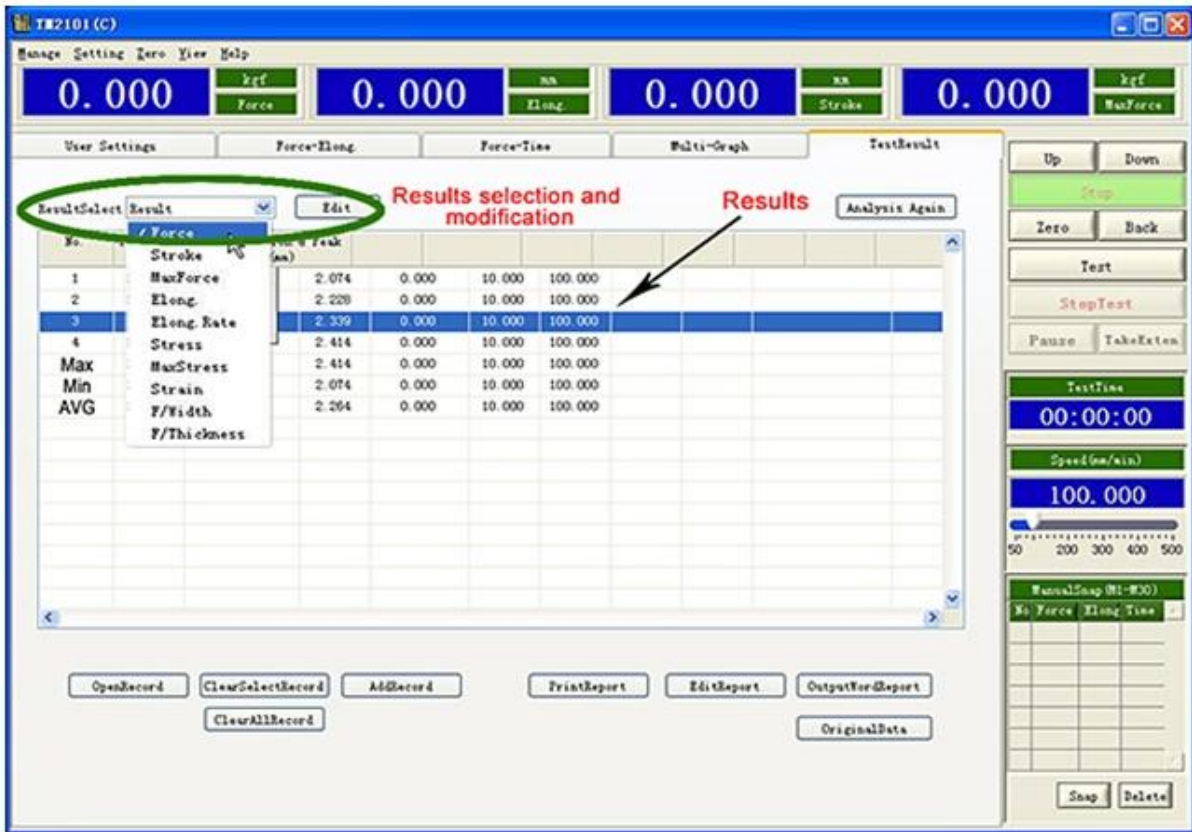


2. Connect computer and software. Auto detect and connect:





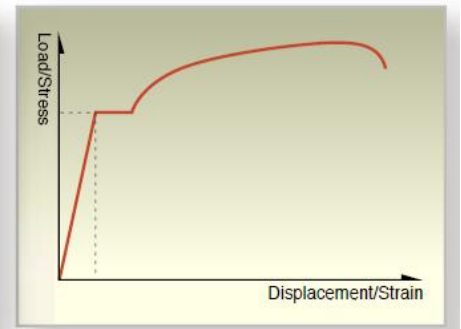
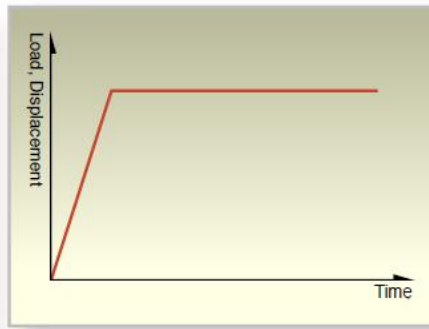
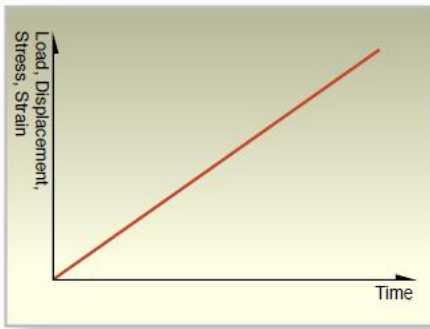
### 3. Test results:



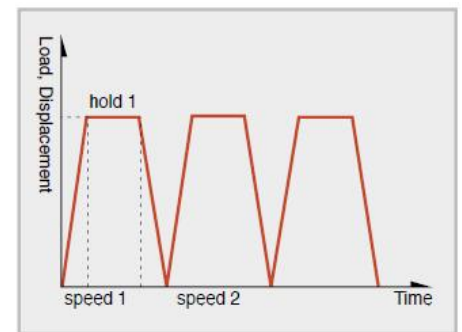
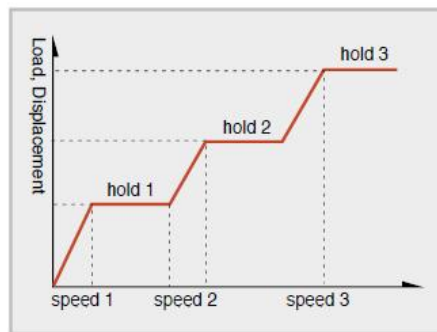
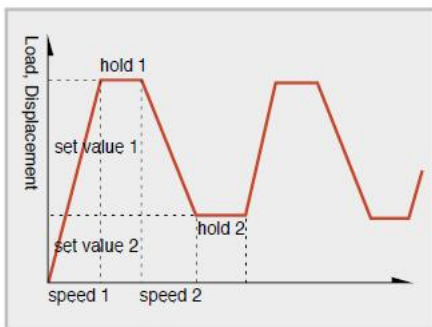
### 4. Real-time measuring graph:



## STANDARD CONTROL MODES



## SPECIAL CONTROL MODES (Advance version):



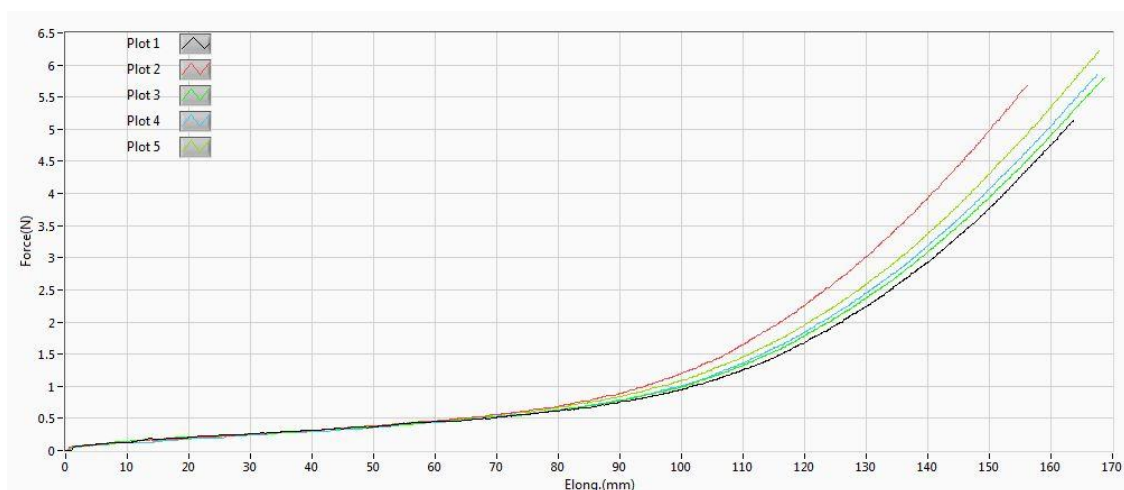


Report in word format:

# Eco Instrument

## Material Testing Report

Customer Name	ECO	Test Date	8/10/2020 2:24:13 PM
Material	Glove	Test Type	EN 455-2
Test Speed	500 mm/min	Lot No	050820



No.	Specimen	Area (mm <sup>2</sup> )	Peak load (N)	Tensile Strength (MPa)	Elongation (%)
1	Latex Glove	0.25	5.13	20.52	654.855
2	Latex Glove	0.25	5.68	22.73	624.549
3	Latex Glove	0.25	5.80	23.21	674.585
4	Latex Glove	0.25	5.85	23.41	669.814
5	Latex Glove	0.25	6.21	24.86	671.361
Maximum	0.00	0.25	6.21	24.86	674.59
Minimum	0.00	0.25	5.13	20.52	624.55
Mean	0.00	0.25	5.73	22.95	659.03