

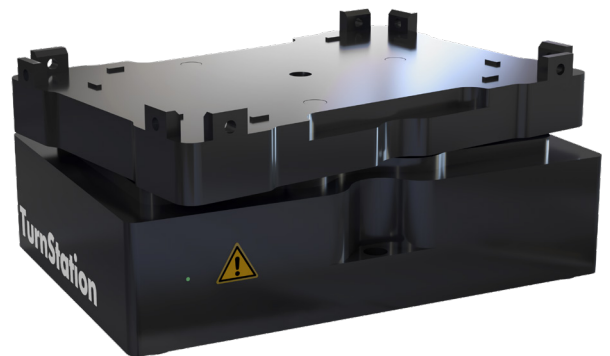
# TurnStation®

## Turn your lab workflow in the right direction

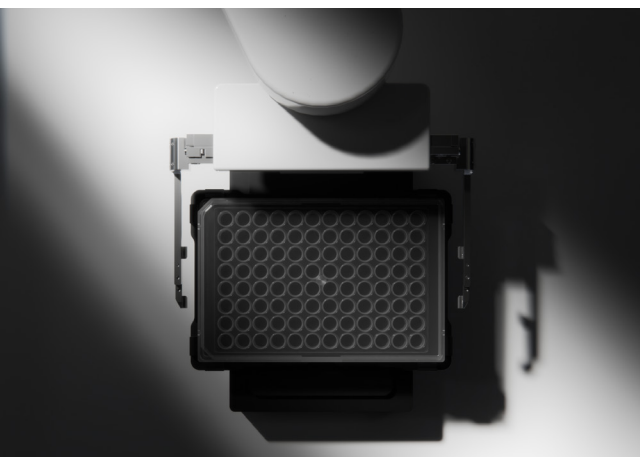
QINSTRUMENTS presents the TurnStation, a unique and essential lab automation device designed for **robotic workcells** and **liquid handlers** to automate microplate-based applications. This innovative tool allows you to set up a workstation that facilitates the easy turning and alignment of microtiter plates at angles of 45°, 90°, 180°, and 360°.

## BENEFITS FROM OUR SOLUTIONS

- Enable easy rotation of microplates
- Enhance flexibility for gripping
- Optimized space utilization
- Increased throughput
- Reduced human errors
- Moving to a zero position for reliable plate transfer
- Continuous rotation with adjustable speed



TurnStation	Order no.	2016-0720
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## SYSTEM FEATURES:

- Defined home and adjustable turn positions
- Easy change from plate orientation within the robot's working envelope
- Integration into the Liquid handler to allow 8-channel access full row and column for 2-fault serial dilution
- Easy integration due to identical footprint as known BioShake®

### Improved Workflow Efficiency

TurnStation enables seamless integration of diverse instruments and processes within an automated workflow. It enables samples to be rotated and repositioned as needed between various steps or devices, eliminating manual intervention and improving overall efficiency. By using TurnStation, you ensure the correct A1 orientation and allow a handshake between 2 different robot working envelopes.

### Enhanced Flexibility

By incorporating TurnStation, the automation system gains greater flexibility in sample handling and routing. It allows microplates to be reoriented without disrupting the automated process, accommodating different protocols or unexpected workflow changes.

### Optimized Space Utilization

TurnStation is a compact device that can be easily integrated into existing lab automation systems or added as a basic component into new systems. It helps optimize the use of limited laboratory space by enabling more efficient use.

It is the right time to advance lab automation and liquid handling applications.

## SPECIFICATIONS

TURN	Description	TurnStation allows microplates to be rotated arbitrary in pre defined degree steps Optimize the change of plate orientation (portrait vs landscape)
	Velocity	3 pre-defined velocities
	Positions	0°   45°   90°   135°   180°   225°   270°   315° with an accuracy of ± 1°
	Max. loading weight	500 g
DEVICE CONTROL	Description	Remote controlled   All electronics built in   No external controller required
	Peripheral Interface	EIA-232 / RS-232 interface (2 m cable with RS-232 plug-in connector) optional: USB via USB-serial adapters (Rec. DIGITUS DA-70156) or USB via MOXA USB-to-serial hub
	Status	LED in corner area GREEN = ok   RED = error
ELECTRICAL	Operation voltages	24 V DC   I <sub>max</sub> : 0.4 A   P <sub>max</sub> : 10 Watt
	Power supply	Input: 100 - 240 V AC   50 - 60 Hz      Output: 24 V DC   I <sub>max</sub> : 5.0 A   P <sub>max</sub> : 120 Watt External power supply unit (CE/UL/CSA approved, 85-264 V AC, 47-63 Hz, IEC/EN60320-1 C14   Degree of protection: IP20)
	Power connection	Prewired cable   length 2 m   barrel connector ID 2.5 mm x OD 5.5 mm
GENERAL	Adapter	Optional mounting of adapter (2016-1xxx) is possible to allow process of non and semi-skirted plates
	Housing material	Aluminum anadized, black
	Environment operating	± 15°C to 35°C
DIMENSIONS & WEIGHT		(W x D x H) 142 x 99 x 62.75 mm   5.59 x 3.9 x 2.47 inch 1.15 kg   2.53 lbs
LABWARE		All ANSI SBS/SLAS conformed microplates

## ORDERING INFORMATION

ORDER NO.	INSTRUMENTS	
2016-0720	TurnStation	Automation-friendly module for defined rotation positions in steps of multiple of 45°

### Legal Notices & Trademarks

QINSTRUMENTS is owner of numerous patents worldwide. Please respect our intellectual property.

WO2008135565, US8323588, EP2144716: Sample handling device for and methods of handling a sample  
WO2011113858, US9126162, EP2547431: Positioning unit for a functional unit  
WO2013113847, US10052598, EP2809436: Cog-based mechanism for generating an orbital shaking motion  
WO2013113849, US9371889, EP2809435: Mechanism for generating an orbital motion or a rotation motion by inverting a drive direction of a drive unit  
WO2014207243, US20160368003, EP3013480: Application-specific sample processing by modules surrounding a rotor mechanism for sample mixing and sample separation  
WO002022128814A1: Laboratory apparatus comprising a fixing mechanism for fixing a slide  
WO002022128809A2: Laboratory apparatus comprising a mixing mechanism for mixing a medium of a slide

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