

# Heavy Stand HS1

# Light Stand LS1

STABLE LABORATORY STAND FOR  
MICROMANIPULATORS

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INSTRUCTION MANUAL



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STABLE LABORATORY STAND FOR  
MICROMANIPULATORS

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# 1 INTRODUCTION

## 1.1 Packing List

Please check that all following items are included in your package:

- 1x Base
- 1x Main post
- 4x Mounting nuts (already mounted in the main post)
- 2x Mounting Rods
- 1x Socket screw
- 1x Socket wrench

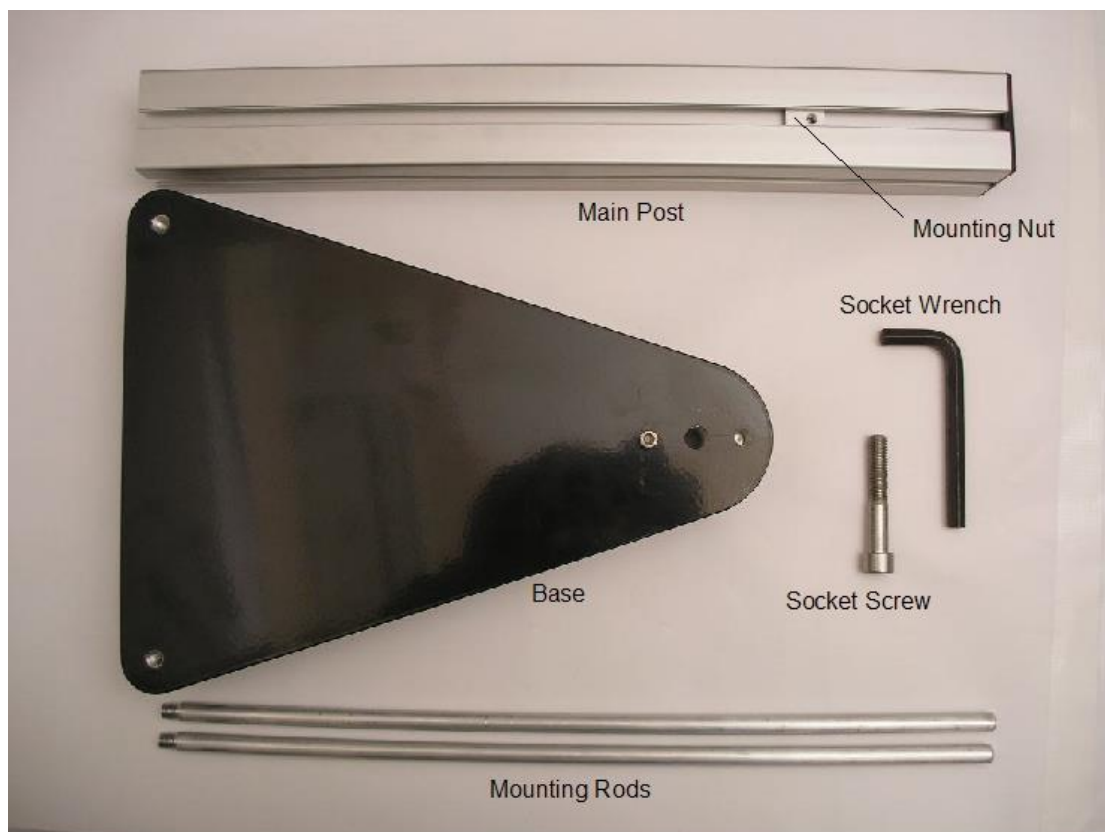
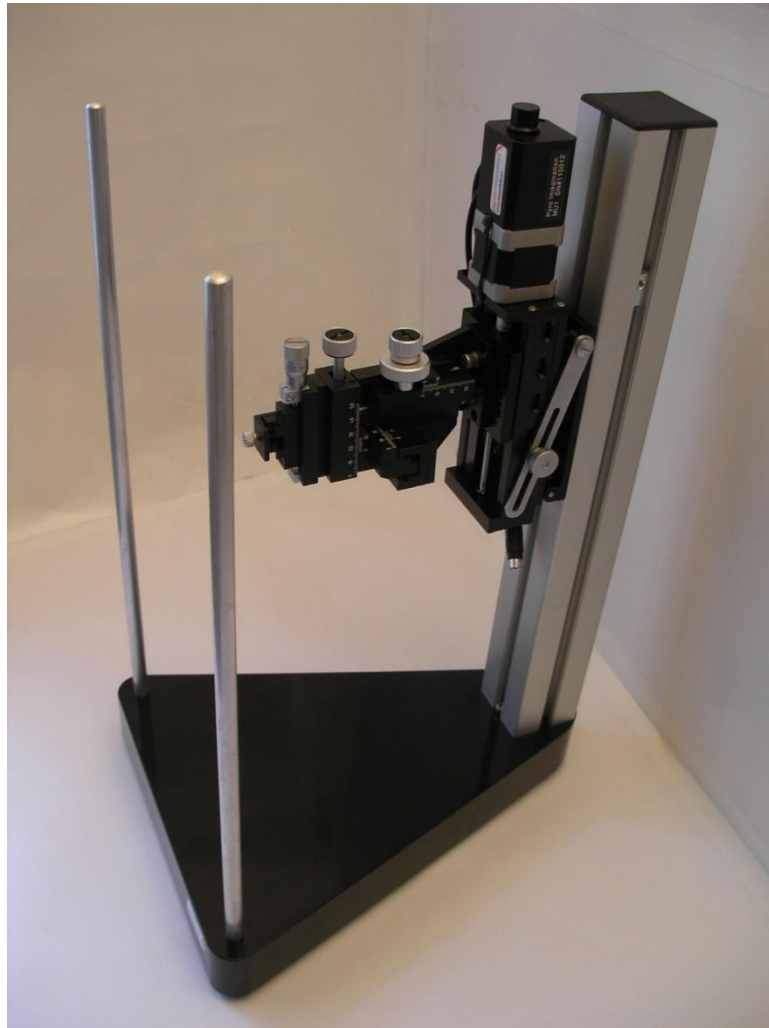


Figure 1: Overview of the parts included in the package. Note that the exact appearance of some delivered items might differ to this photograph.

## 1.2 Overview

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*Figure 2: The Heavy Stand HS1 shown together with a mounted Micromanipulator **MU1** from PyroScience.*

The Heavy Stand **HS1** has been especially developed for microsensor measurements. Its heavy aluminium base and rigid aluminium post provide a stable and vibration-free support for standard micromanipulators (e.g. Micromanipulator **MU1** from **PyroScience**). The triangular base ensures a wobble-free stand on any surface. Micromanipulators can be mounted on all four sides of the main post. The mounting position is continuously adjustable due to the sliding mounting nuts (M6 thread). Two additional mounting rods (12 mm in diameter) simplify the fixation of samples. All parts are composed of aluminium or stainless steel, making the Heavy Stand **HS1** very resistant to aggressive liquids (e.g. seawater or acids). The aluminium base is additionally varnished with black industrial powder-coating.

## 2 SAFETY GUIDELINES

**PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE STARTING TO WORK WITH THIS DEVICE**

- Maintenance, modifications and repair work must only be carried out by a suitable, qualified technician.
- If there is any reason to assume that the instrument can no longer be employed without a risk, it must be set aside and appropriately marked to prevent any further use.
- The safety of the user may be endangered, e.g. if the instrument a) is visibly damaged, b) no longer operates as specified, c) has been stored under adverse conditions for a longer period.
- If there is any doubt, you should send the instrument back to PyroScience for repair.
- The user has to ensure the following laws and guidelines:
  - EEC directives for protective labor legislation
  - National protective labor legislation
  - Safety regulations for accident prevention

**THIS DEVICE MAY ONLY BE OPERATED BY QUALIFIED PERSONAL:**

This device is only intended for use in the laboratory by qualified personal according to this instruction manual and these safety guidelines!

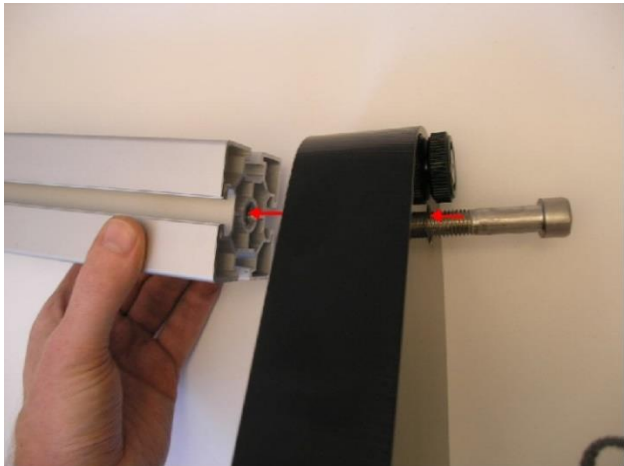
Keep this device out of the reach of children!

This device is not intended for medical or military purposes!

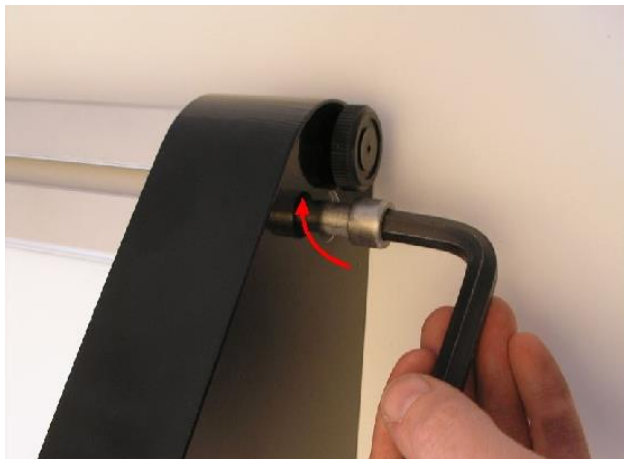
## 3 ASSEMBLY AND OPERATION

Please follow these steps for assembling the Heavy Stand **HS1**:

1. Put the socket screw through the hole in the base and insert it into the open end of the main post.



2. Use the included socket wrench and fasten the socket screw securely.



3. Screw the two mounting rods into the corners of the base.



4. Completely assembled stand.



5. There are four mounting nuts integrated in the grooves on either side of the main post. They provide a M6 thread for mounting micromanipulators. The mounting nuts are spring loaded; their vertical position can be adjusted by sliding them up and down.

(A mounting nut might get displaced from the centre of the groove. In that case, simply push it back into the centre with your fingers)



6. Only for **HS1**: In order to compensate any uneven underlay, each of the three knurled screws at the bottom can be adjusted  $\pm 15$  mm.





## 4 MAINTENANCE

Periodically, you should treat the threads of the screws and nuts with a small amount of grease. In order to protect all other parts of the **HS1** in aggressive environments (e.g. seawater), you might coat them **thinly** with a Teflon spray.

## 5 TECHNICAL SPECIFICATIONS

<b>Technical Specifications</b>	
<b>Weight</b>	10 kg <b>HS1</b> / 4.5 kg <b>LS1</b>
<b>Dimensions</b>	560 / 535 mm x 400 mm x 360 mm (H x W x D)
<b>Dimensions of main post</b>	500 mm x 60 mm x 60 mm (H x W x D)
<b>Dimension of mounting rods</b>	500 mm in length, Ø 12 mm
<b>Thread in mounting nuts</b>	M6
<b>Material</b>	Aluminum (screws: stainless steel)

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