

## PACKAGING PROCEDURE SLICERS KCWI

		A	B	C	D
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Versions	Modifications
A	First issue

Spreading:

WINLIGHT OPTICS: File and QA.  
 CALTECH: P. MORRISSEY

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## **1 SUBJECT**

This document describes the procedure to use to pack and unpack the Slicers 1, 2 and 3. This procedure is also available for the Camera.

Important note: Each picture shows a specific action to do. These are just for examples and sometimes they have been taken during the tests before packaging.

## **2 DOCUMENT**

KCWI IFU nomenclature: WO4340-010-NOM1

## **3 TOOLS AND PRODUCTS**

Kapton scotch tape 25mm  
Set of hexagonal screwdriver CHC M1.5 to M8  
Ethyl alcohol  
Polyurethane sheet to envelop the main structure  
Gloves, Mask

## **4 MANUFACTURING TOOLS**

Grey room class 100.000

## **5 MEASURING TOOLS**

None

## **6 ENVIRONMENT**

Temperature :  $18^{\circ}\text{C} \leq T^{\circ}\text{C} \leq 22\text{C}$   
Relative humidity :  $30\% \leq \text{Hr} \leq 70\%$

## **7 PARTICULAR CAUTION**

Use gloves and mask to manipulate the slicers. The slicers don't have to be cleaned but they need to be blown.

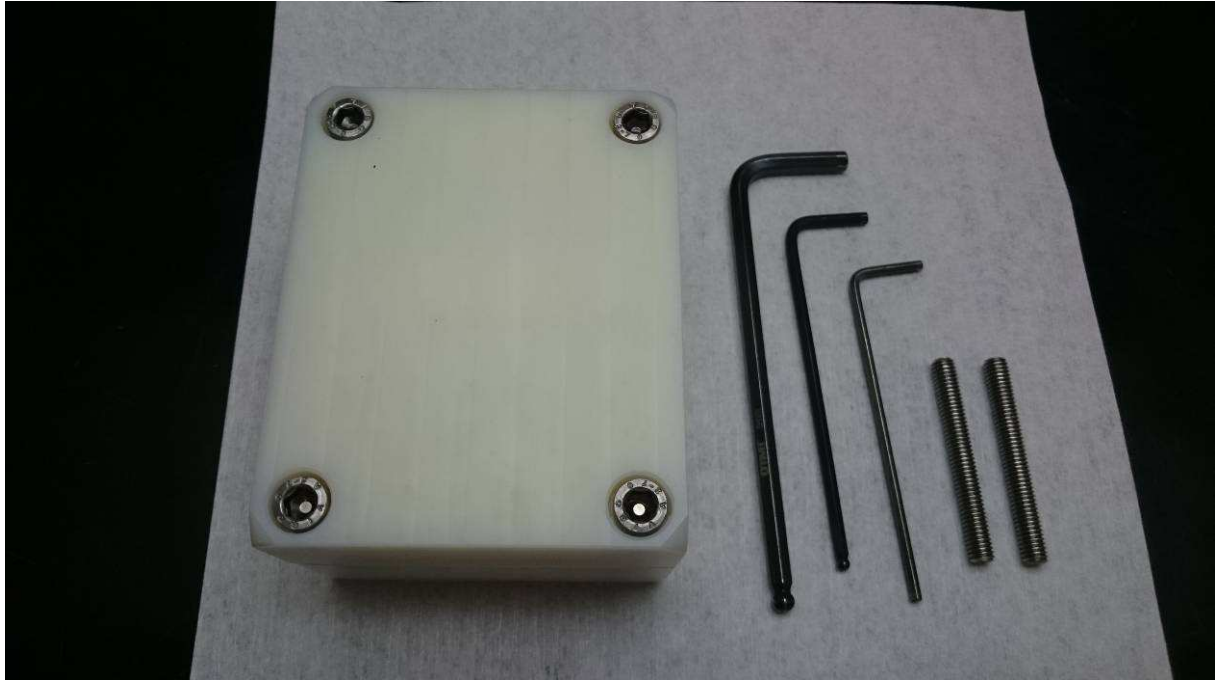
All the mirrors and slicers are sensitive to the shocks.

All the manipulations and handling have to be done with at least 2 persons

## 8 OPERATIONS

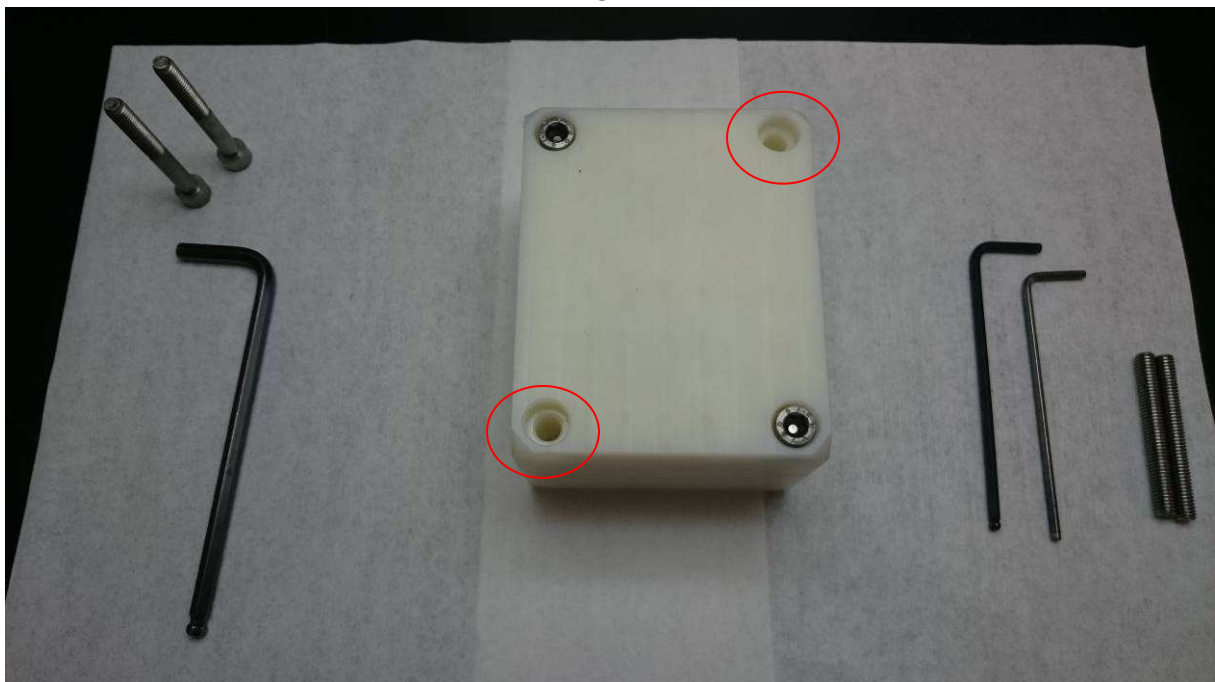
### 8.1 UNPACKING

U1



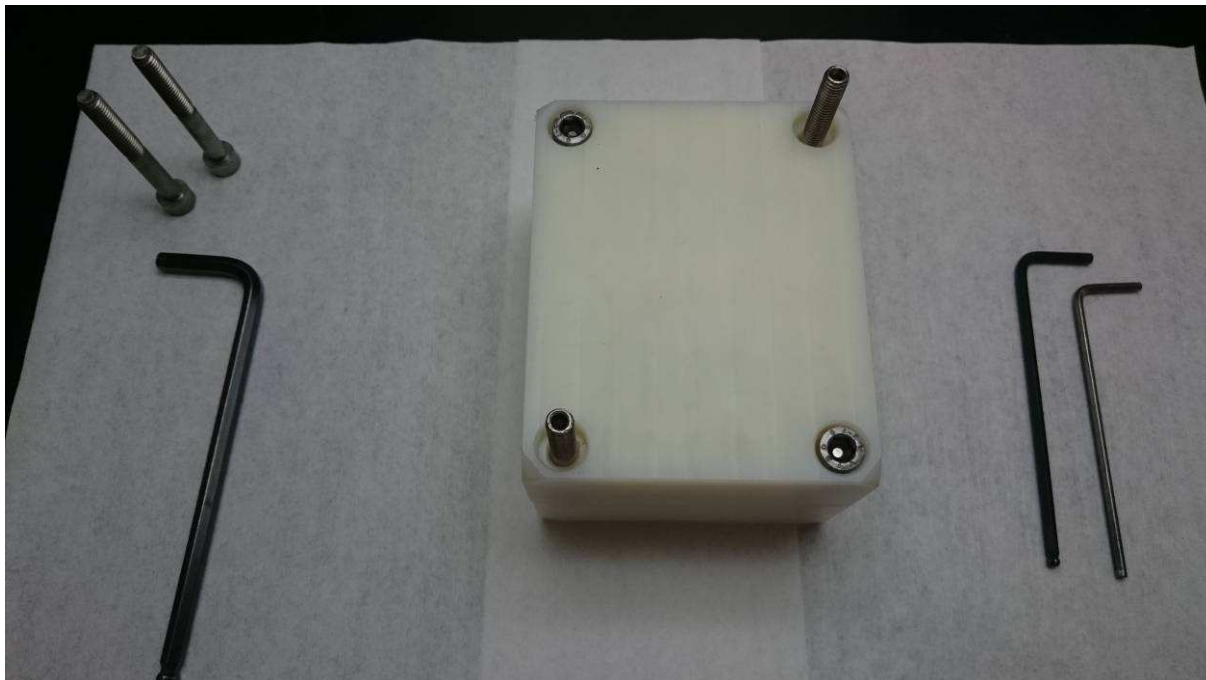
Overview of the polyurethane box and associated tools

U2



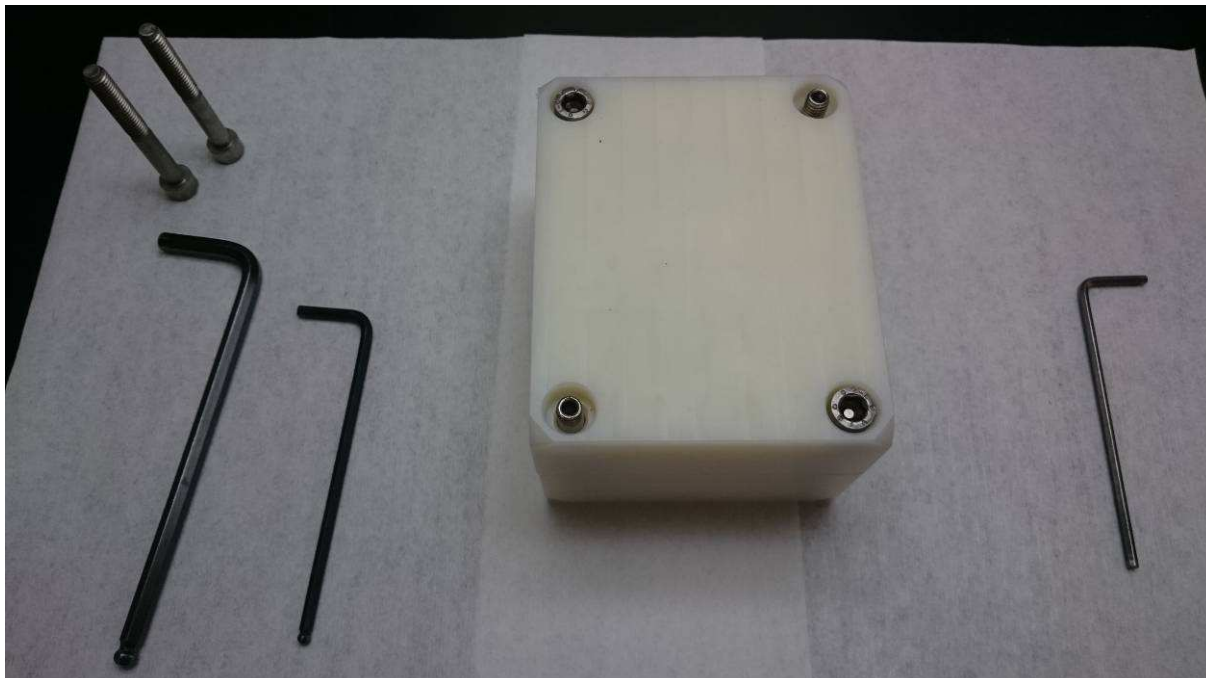
Unscrew and remove 2 opposite screws  
(Red circle)

U3



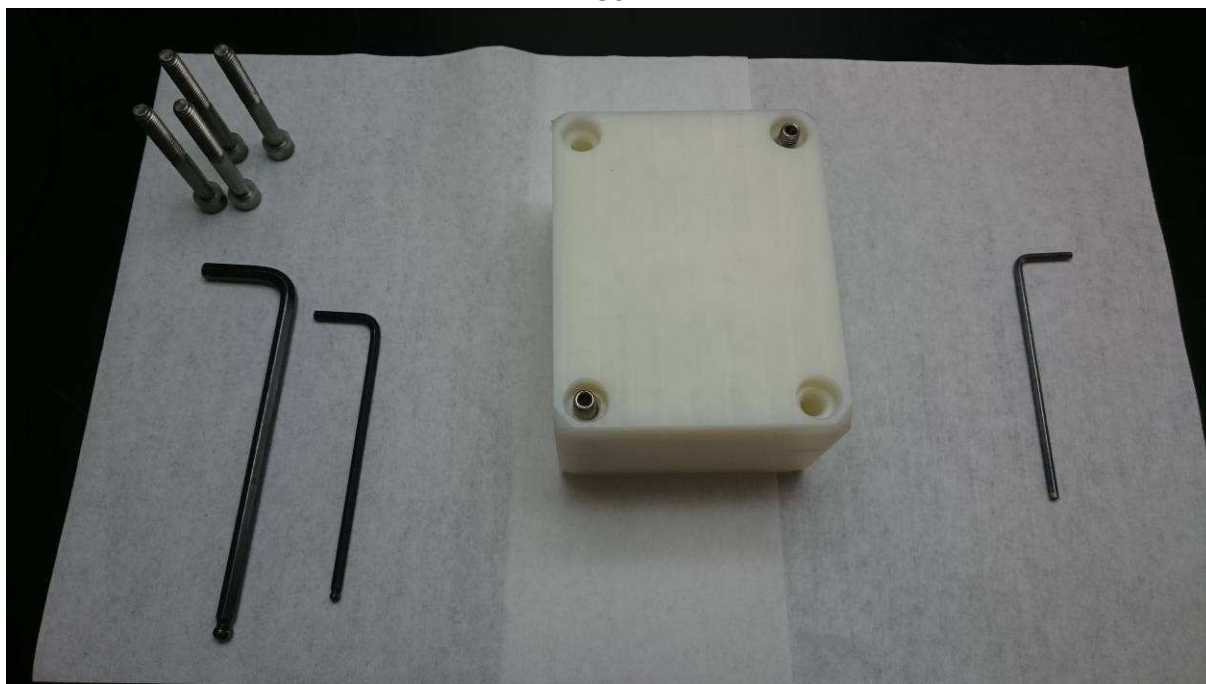
Put the HM Screws M5 into the holes.

U4



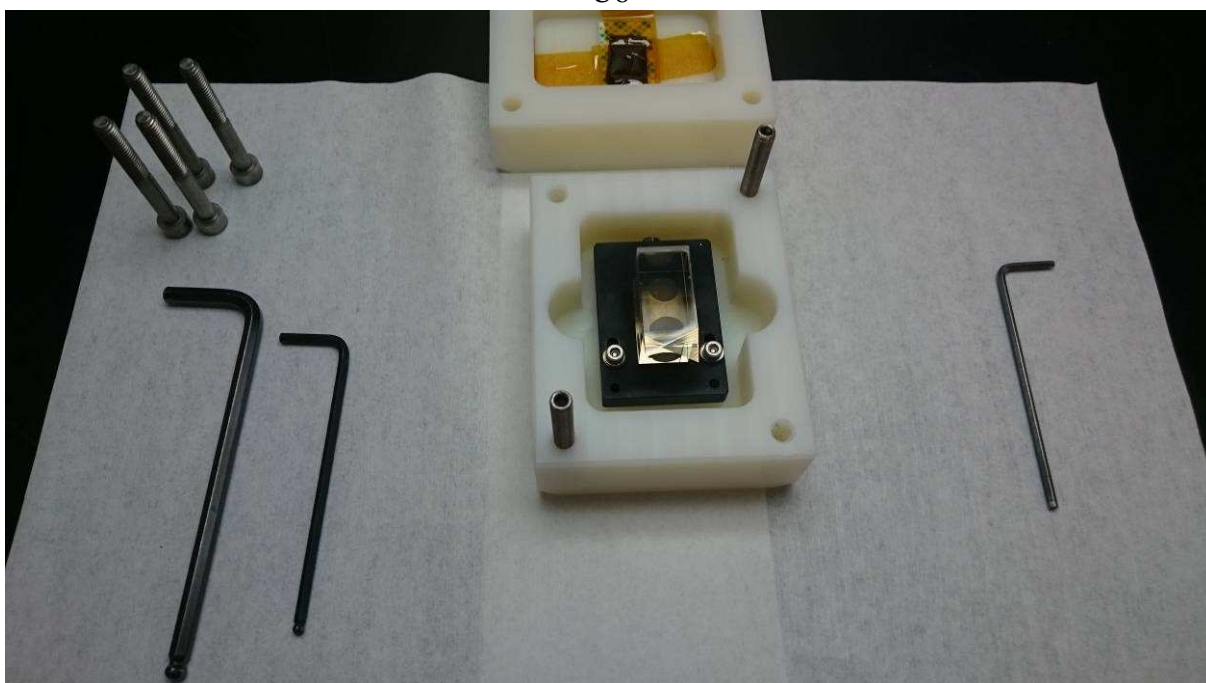
Screw the 2 HM Screws M5 close to the top of the box.

U5



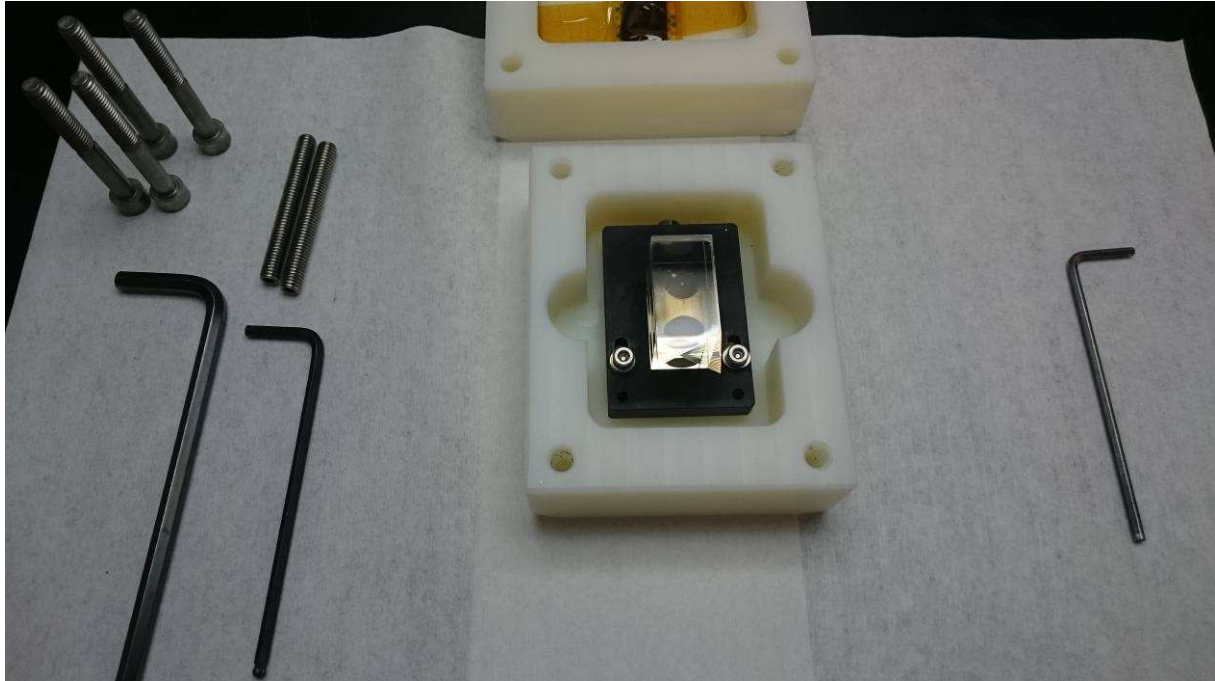
Unscrew the 2 left screws.

U6



Open the box, the cover is guided by the 2 HM Screws.

U7



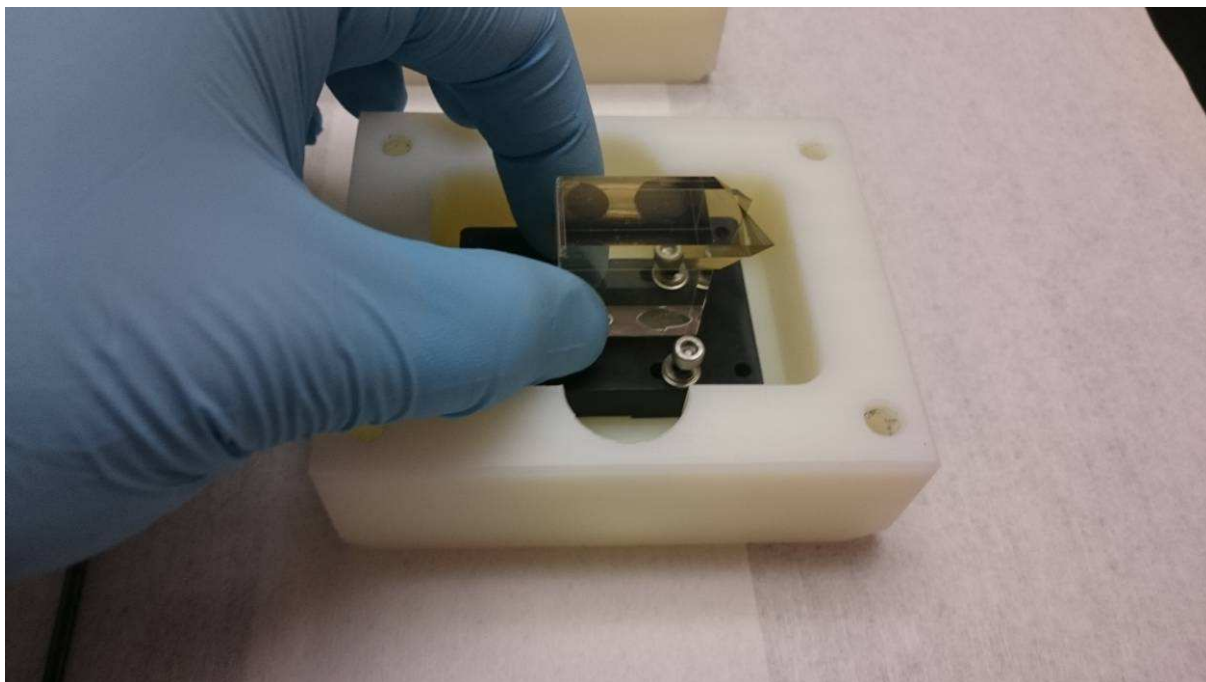
Remove the 2 HM Screws.

U8



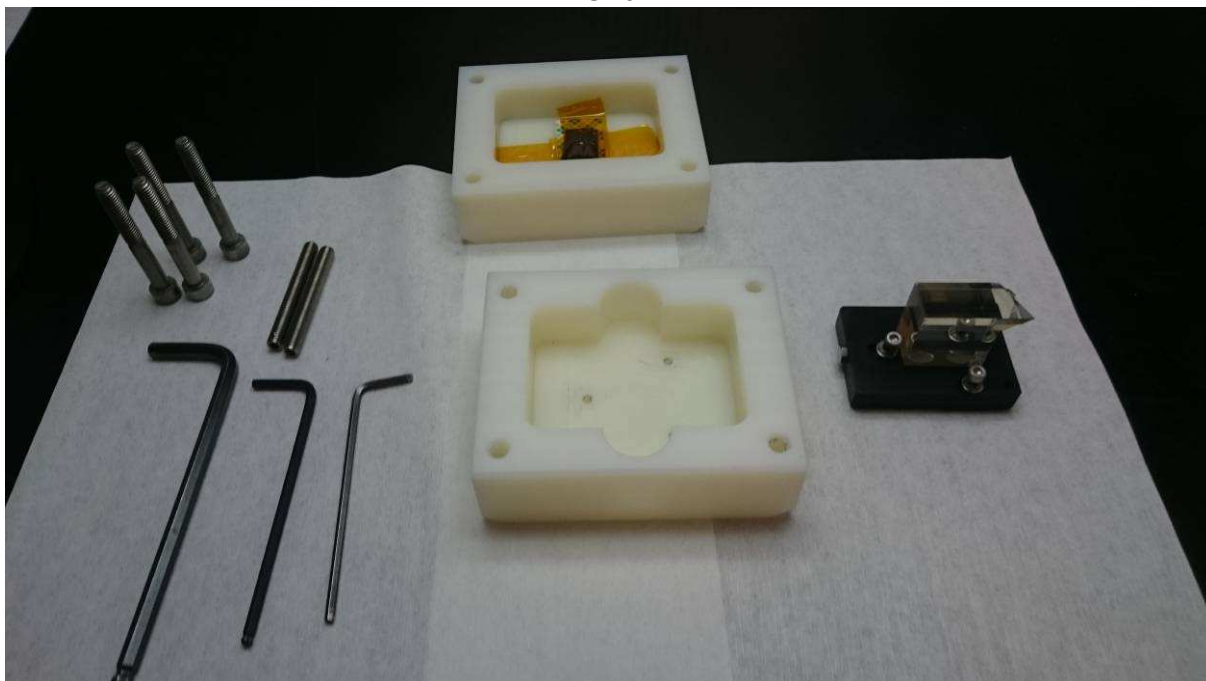
Remove the Kapton scotch tape from the head of the screws  
(Take care to the slices)  
Unscrew the 3 screws on the slicer base.

U9



Hold the slicer by the optical spacer and **only by the optical spacer**

U10

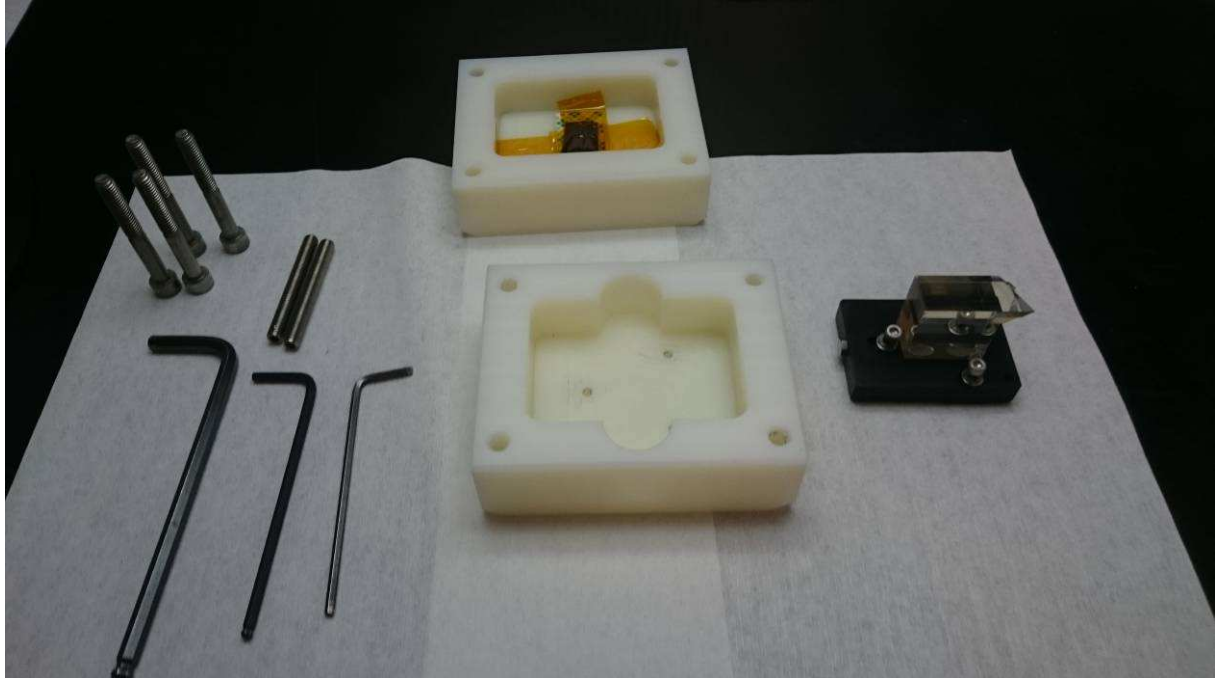


Remove the slicer from the box.



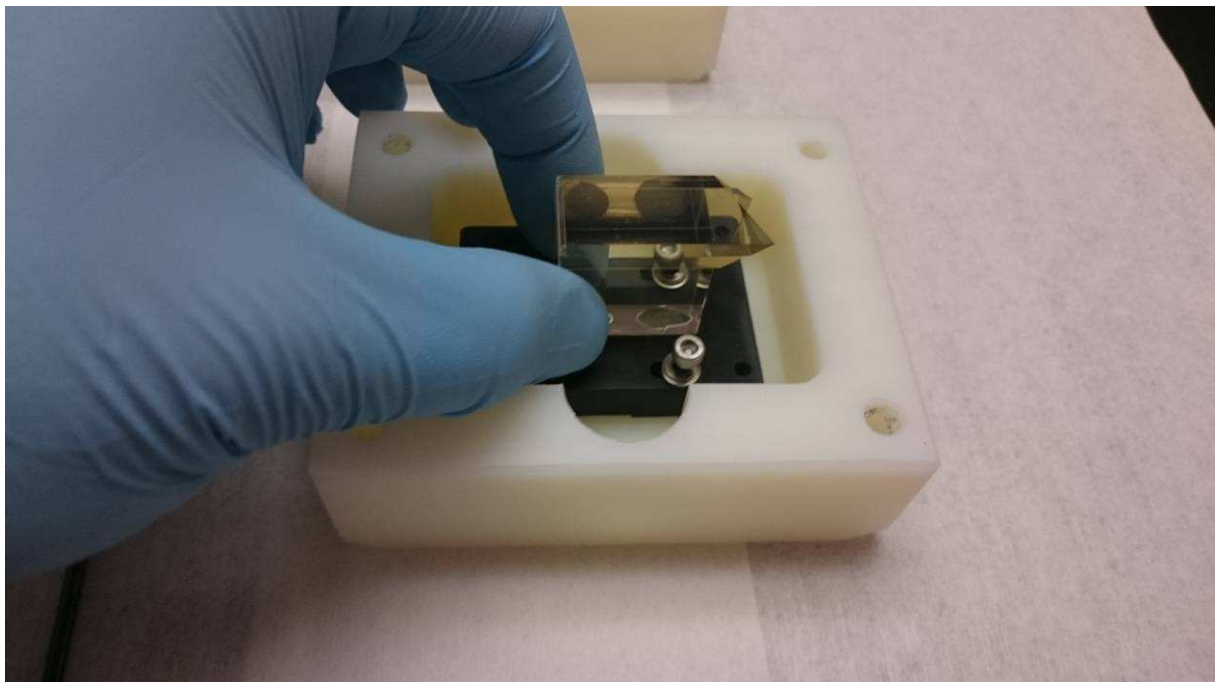
8.2 PACKING

P1



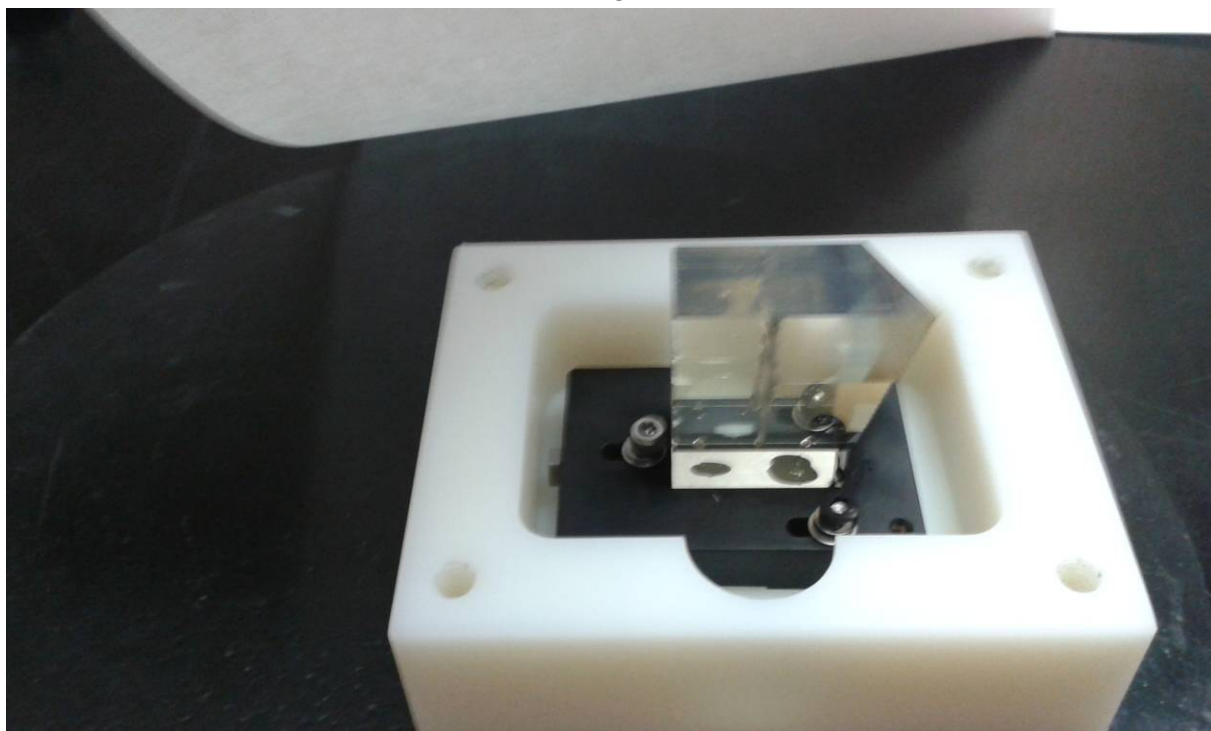
Overview of the slicer, box and associated tools.

P2



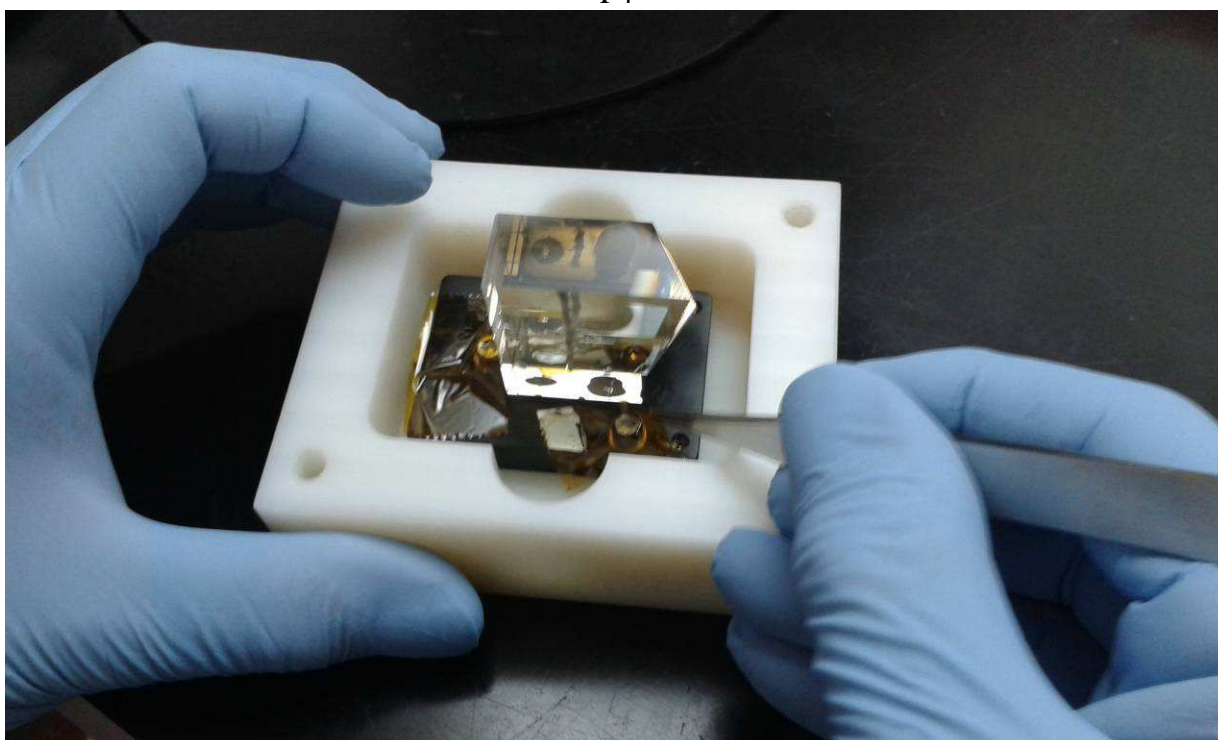
Put the slicer into the box, hold the slicer **only** by the optical spacer

P3



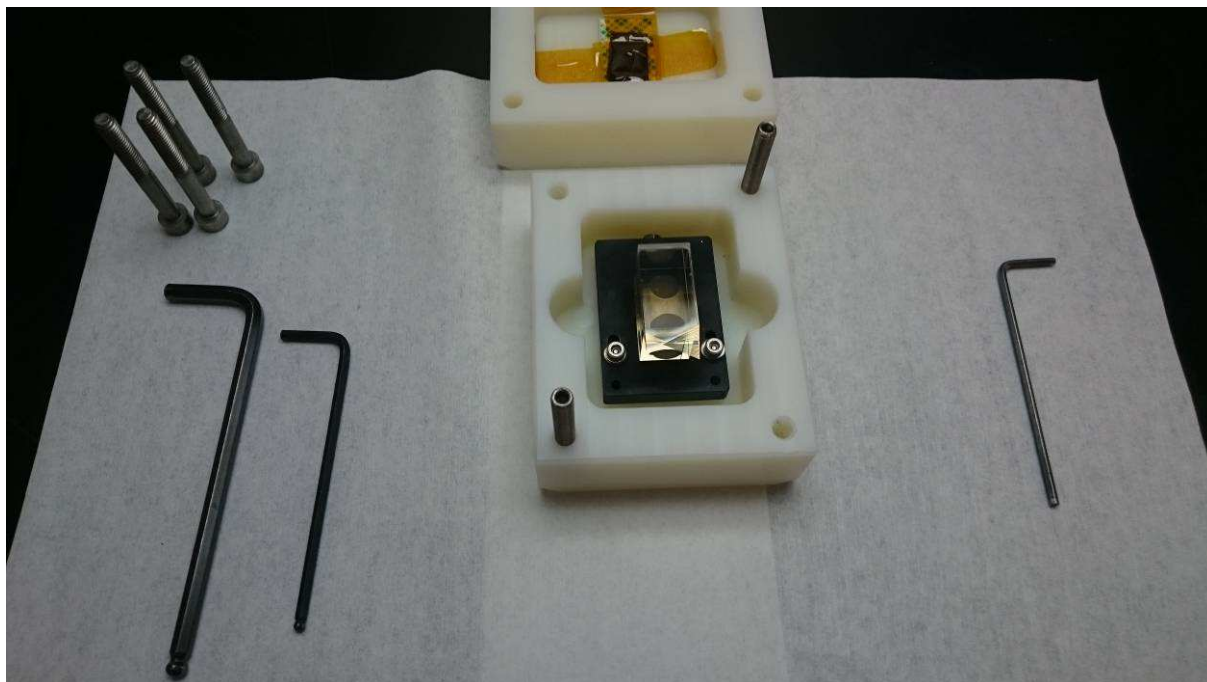
Move back the slicer in the box, then screw the 3 screws.

P4



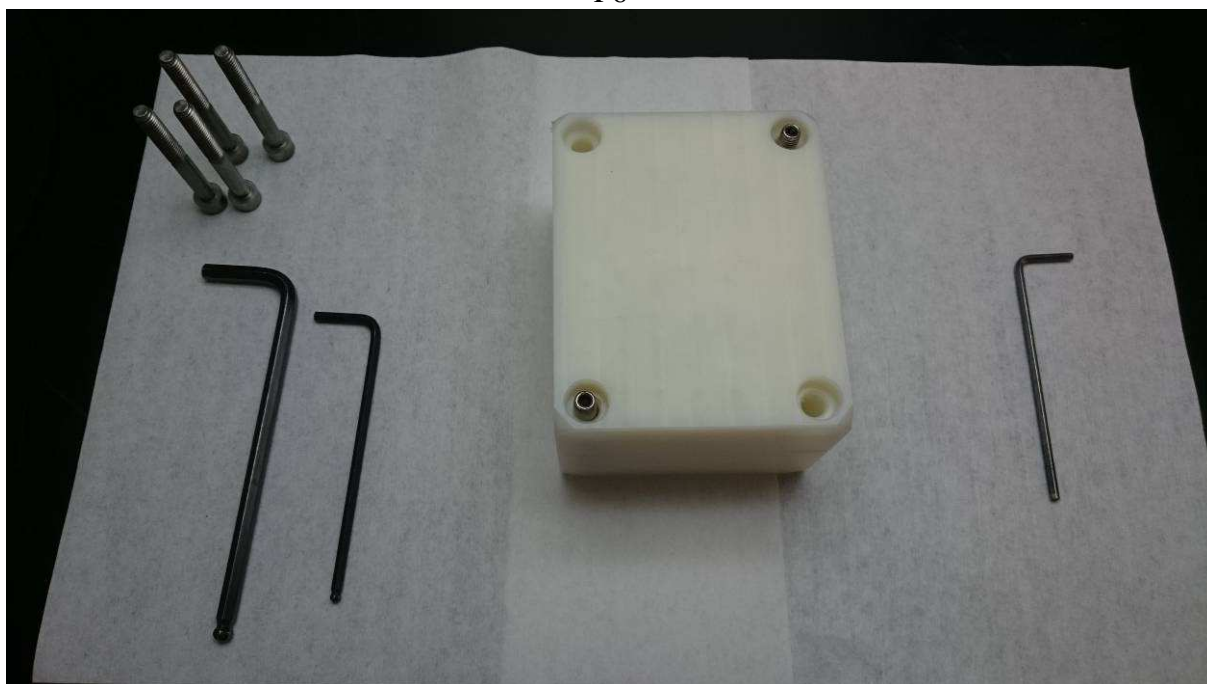
Put Kapton scotch tape on the head of each screw.  
**(Take care to the slices)**

P5



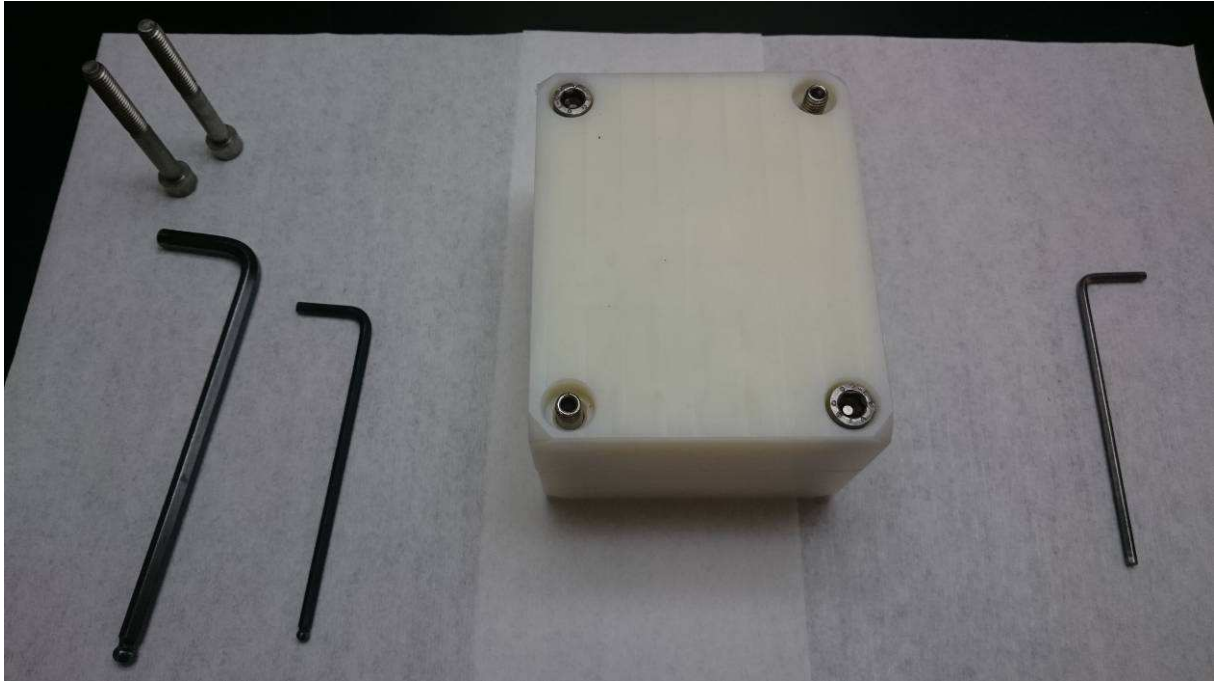
Screw the 2 HM Screws M5 on opposite holes.

P6



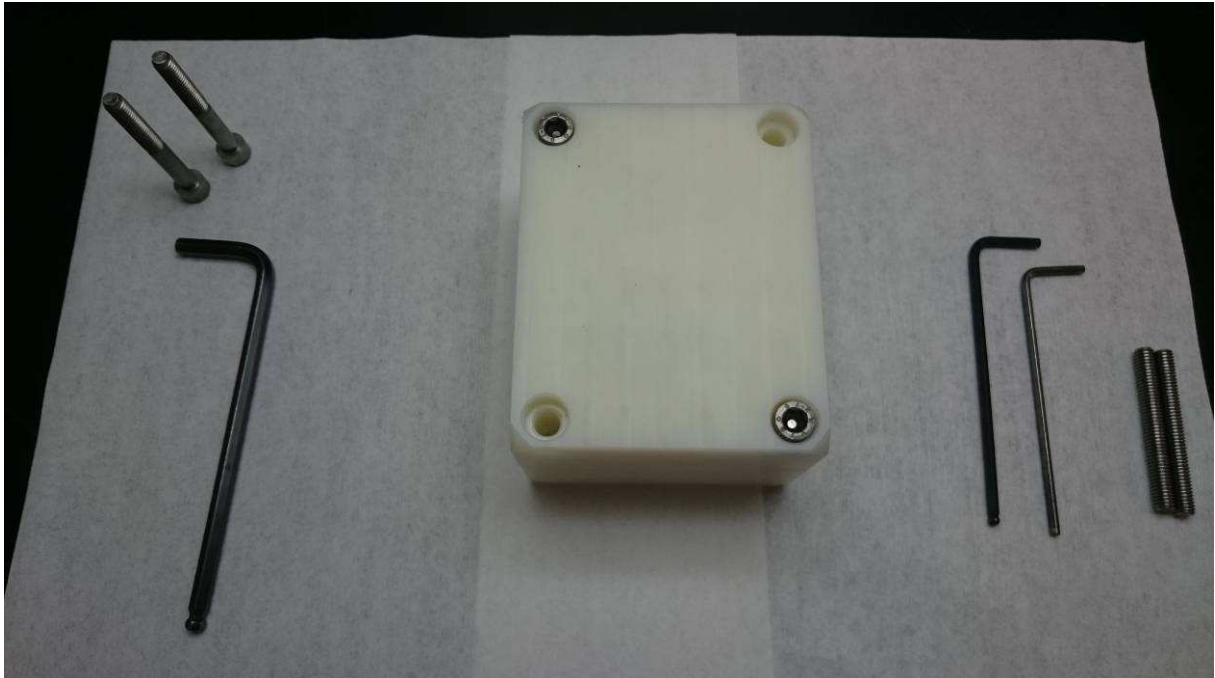
Close the box using the 2 HM screws as guides.

P7



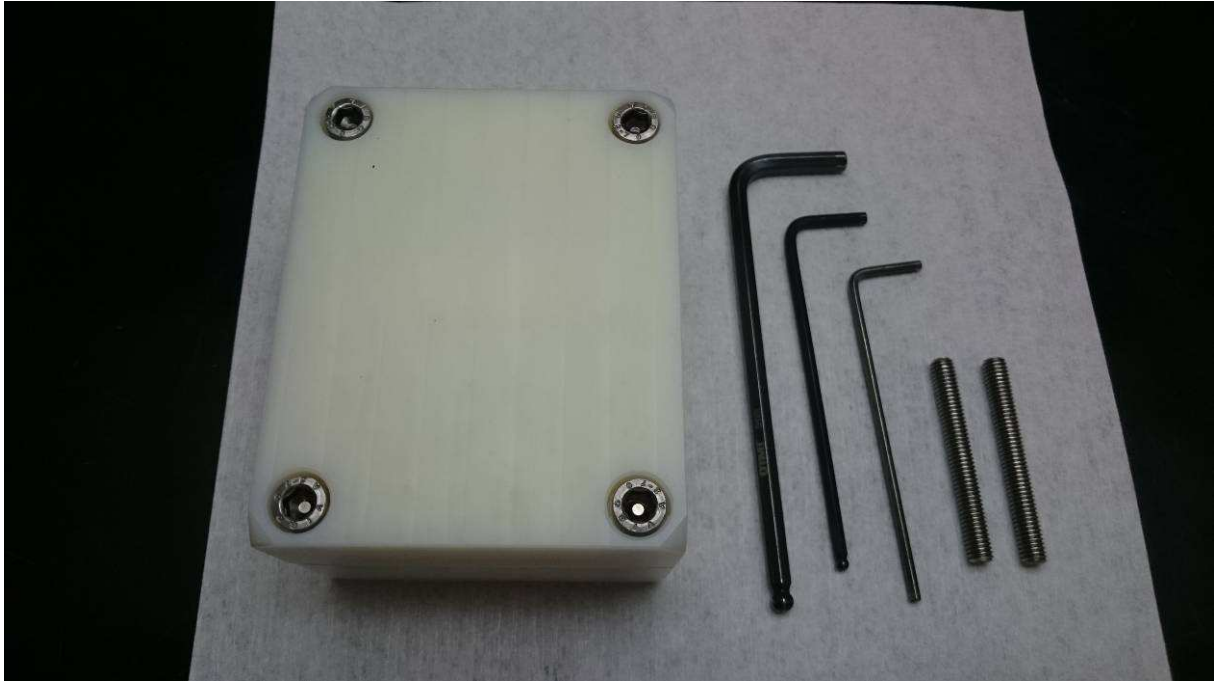
Screw the 2 first screws on opposite holes.

P8



Remove the 2 HM screws.

P9



Screw the 2 last screws.

P10

Put Kapton scotch on the head of each screw, and all around the box.

## **9 QUALITY ASSURANCE**

The project will be managed according to ISO9001 standard.

As part of the quality control procedures, if a non conformity arises from any moment during the development of the work, the contractor will immediately communicate it to CALTECH or WINLIGHT OPTICS.