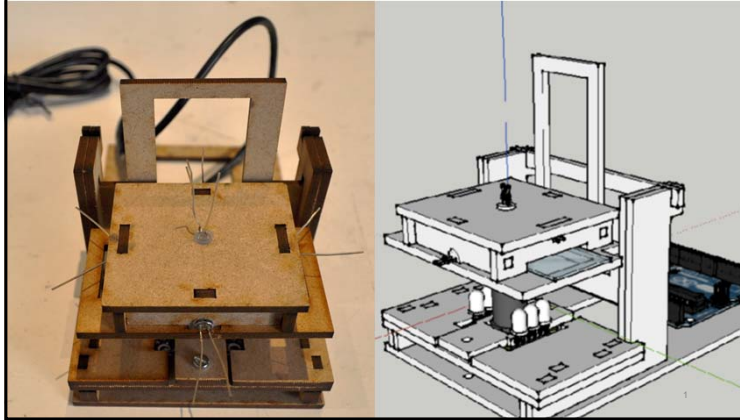


## DIY Webcam Microscope

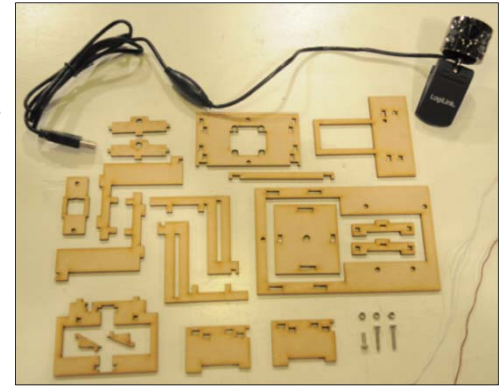
- Assembly Guide



## Check the parts

You should have:

- Lasercut parts
- Webcam
- 2x M3 16 bolts
- 1x M3 10 bolt
- 3x M3 nuts
- Screw driver



2

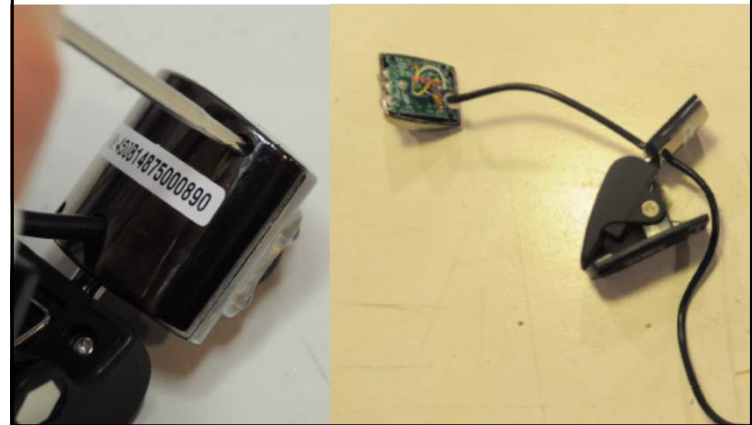
## Test the webcam

Use the dial in the USB cord to modify the LED intensity



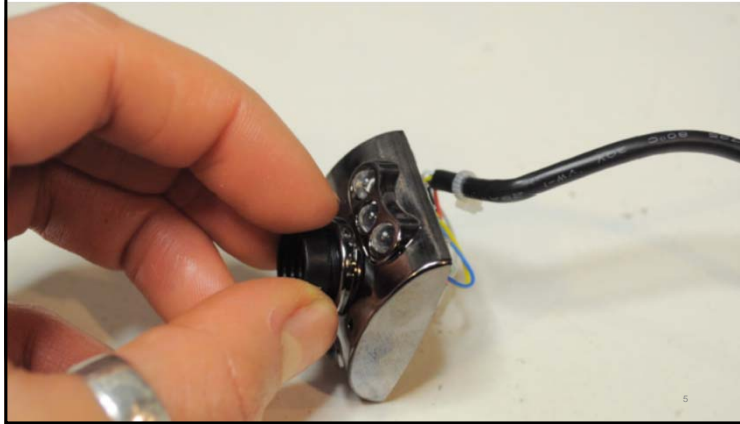
## Disassemble the webcam

Remove the screws on the back of the shell and open it up carefully



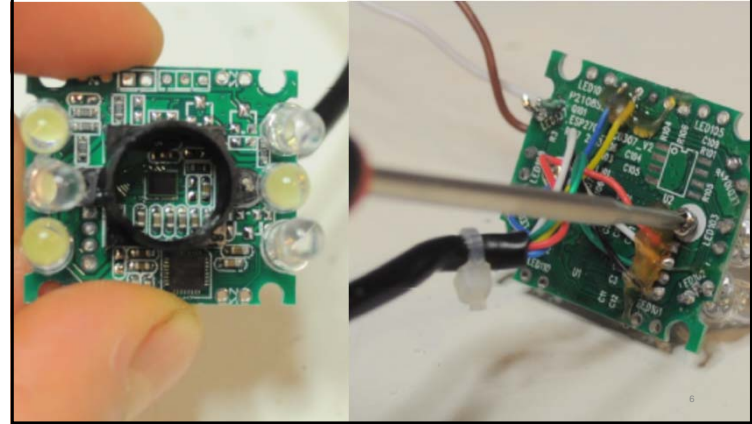
### Unscrew the lens by turning it

Save it, we will need it later on



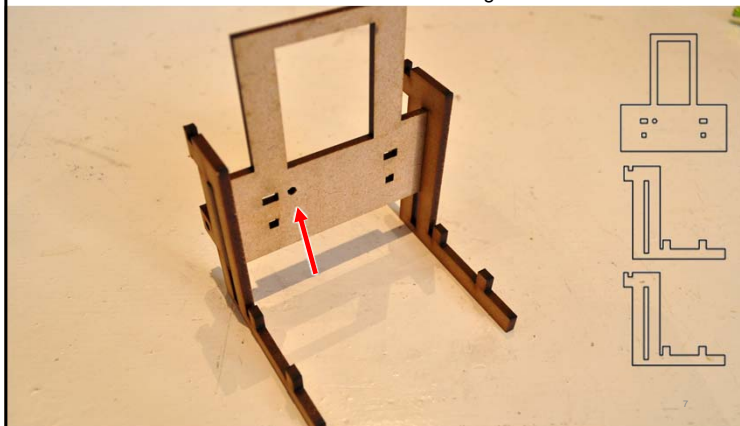
### Remove the lens holder

Be careful: avoid touching the camera sensor



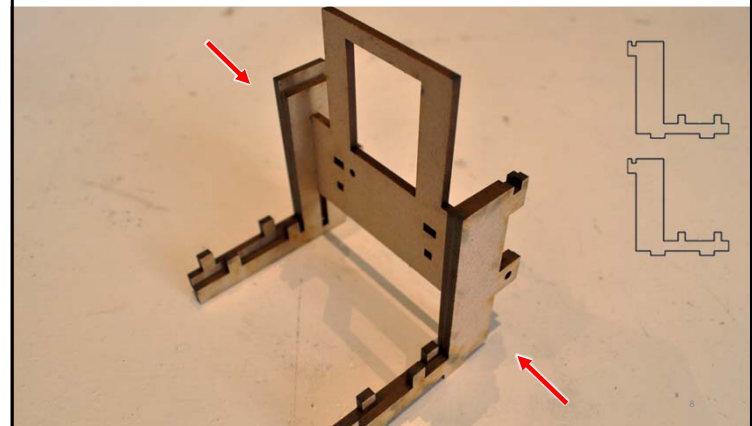
### Assemble the stage slider

Place the stage slider in the two side panels.  
Beware of the orientation of the hole in the stage slider



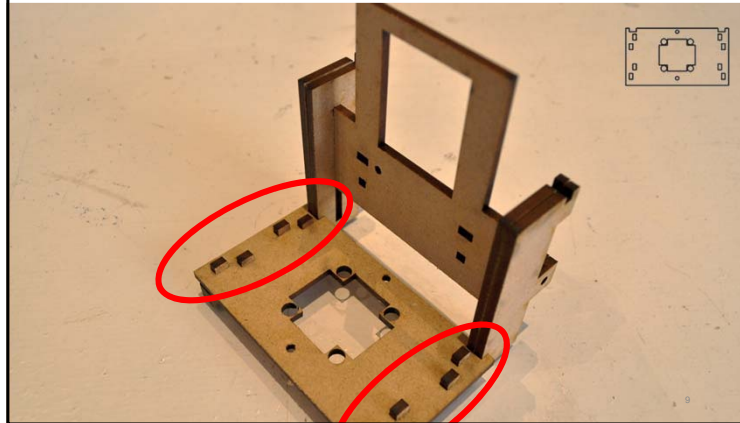
### Secure the stage slider

Place the two outer vertical panels against the sides



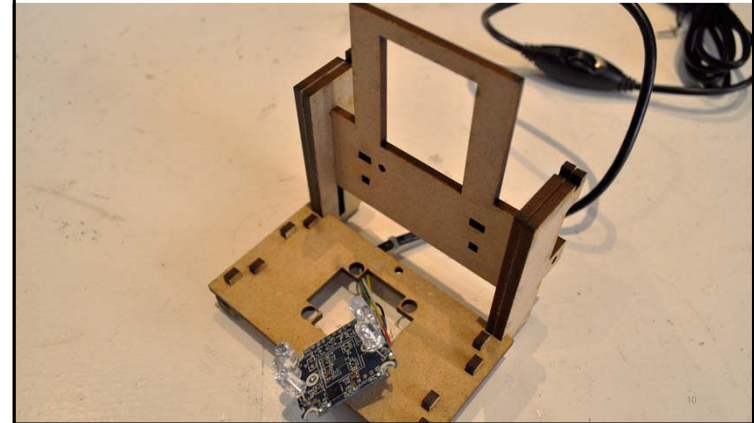
### Attach the camera mount

This horizontal panel should snap lock all vertical panels in place



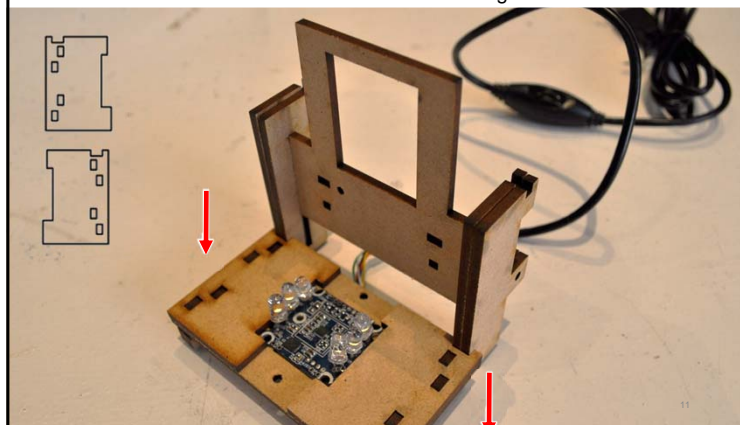
### Push the PCB through the panel

Make sure the USB cable sticks out at the back



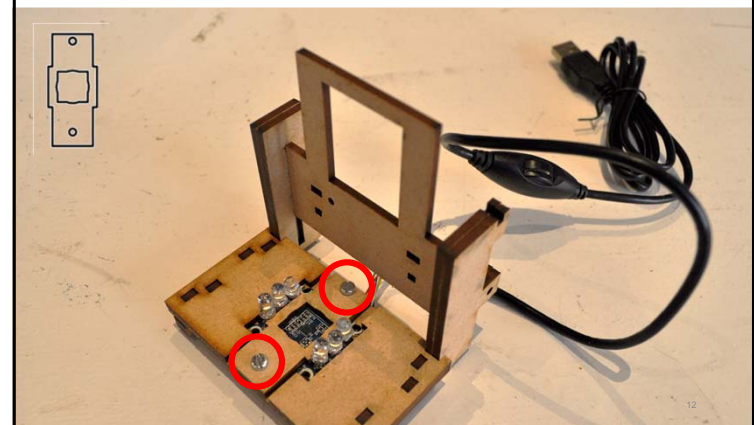
### Snap lock the camera in place

By placing an element on both sides  
In case the PCB has excessive amounts of hot glue ask for a cutter



### Place the lens mount

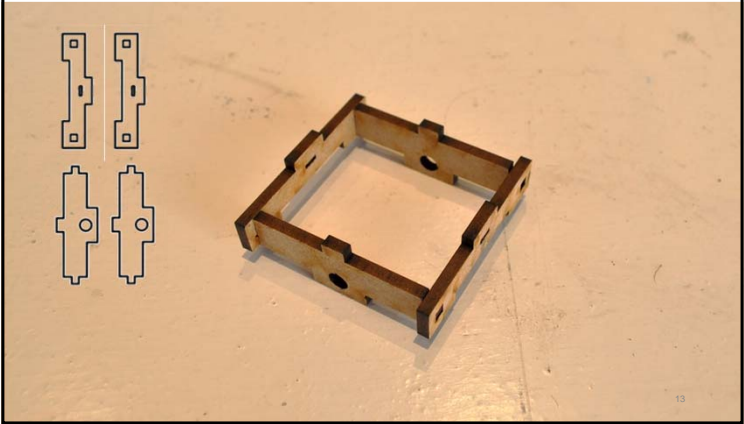
Secure the position of this panel with M3 16 bolts and nuts.  
Slide it from front to back underneath the LEDs. Mind the orientation





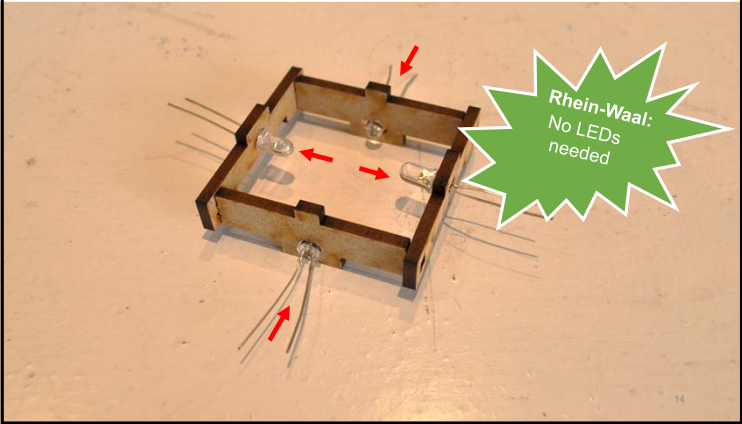
Assemble the stage lid

All four parts should snap together



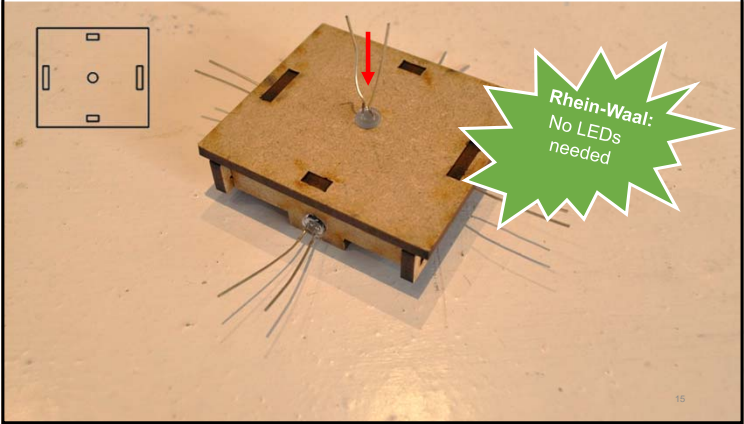
Mount the four LEDs

In the circular holes: slide from outside inward. The others inside-out



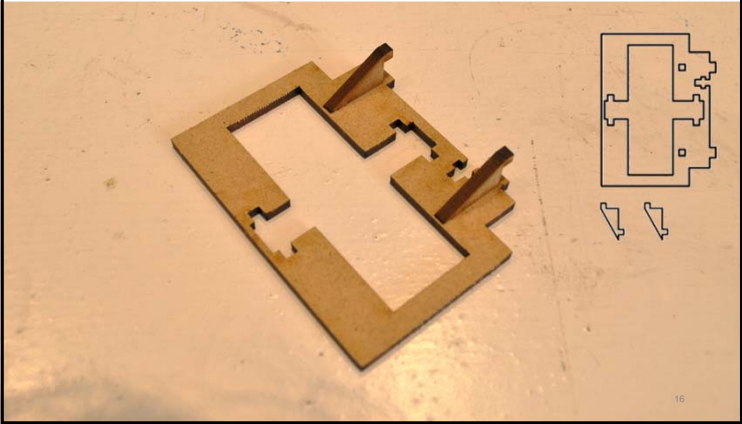
Put the lid on top

Place the opaque LED in the hole



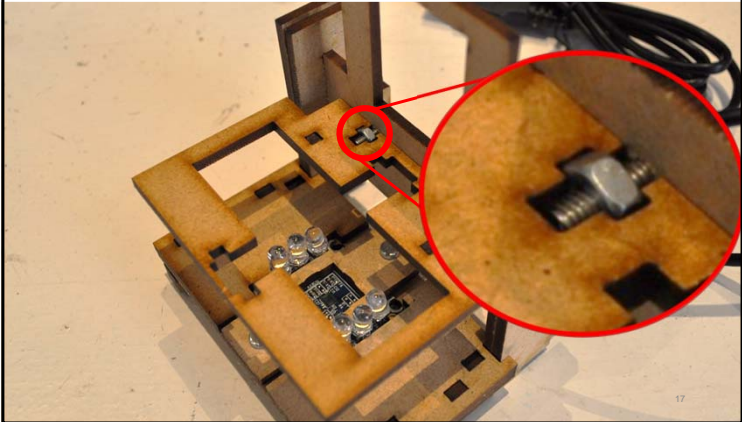
Assemble the microscope stage

Add two supports to the stage



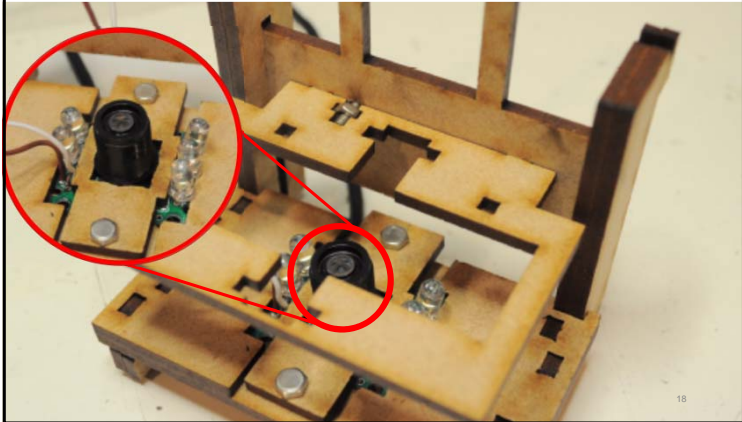
Attach the stage to the slider

Check the orientation. The space for the bolt and nut must line up  
Hold the assembly in such a way the gravity works for not against you



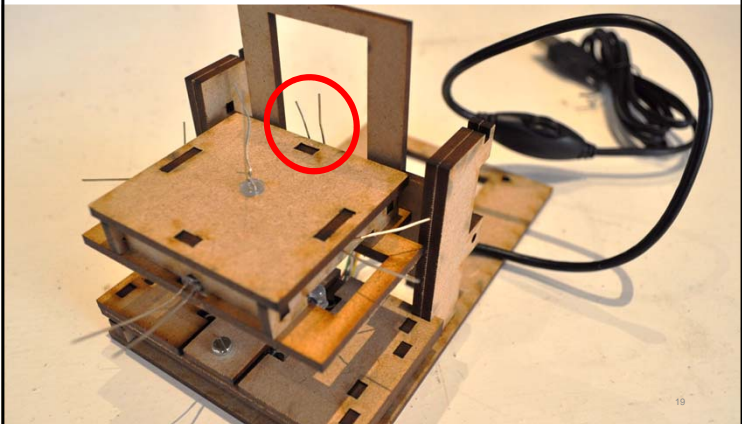
Put the lens in place

Put it upside down



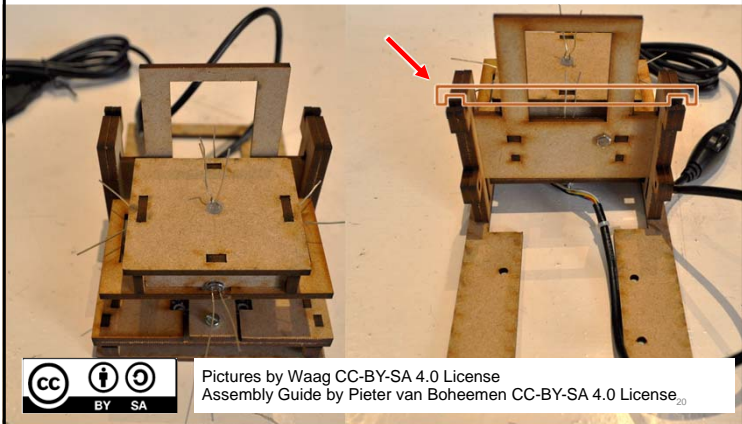
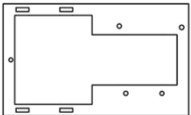
Place the lid on top of the stage

Make sure to bend the LED pins on the back upwards



Place it on the bottom panel

Add the horizontal bar in the back for stability  
There is room for an Arduino in the back.



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