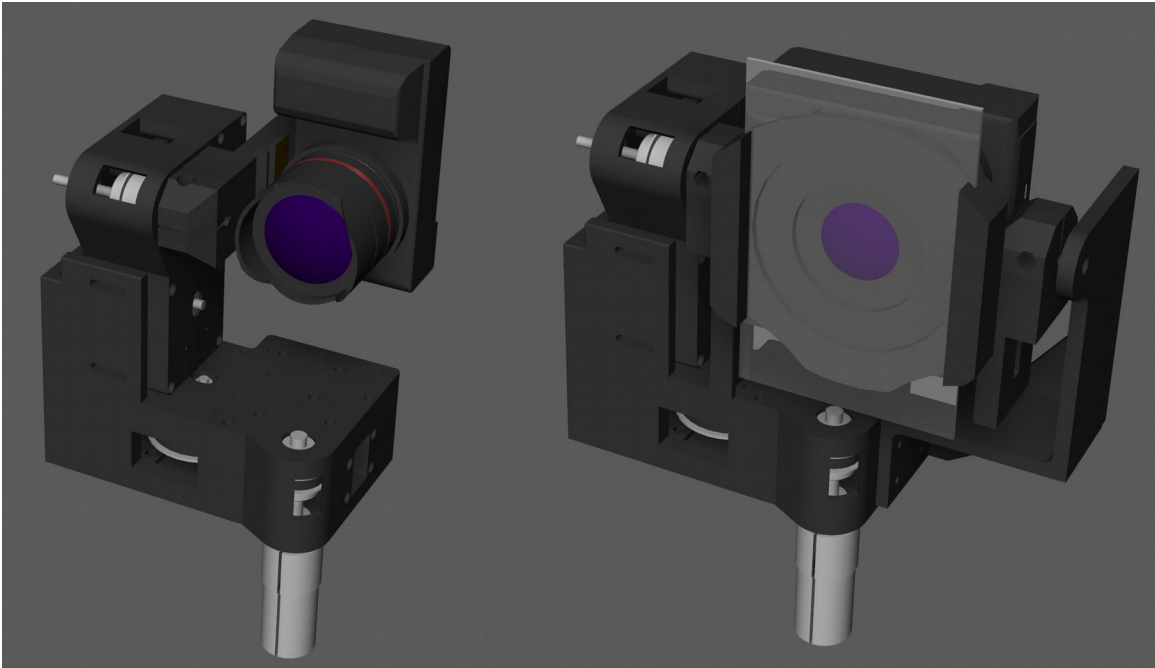
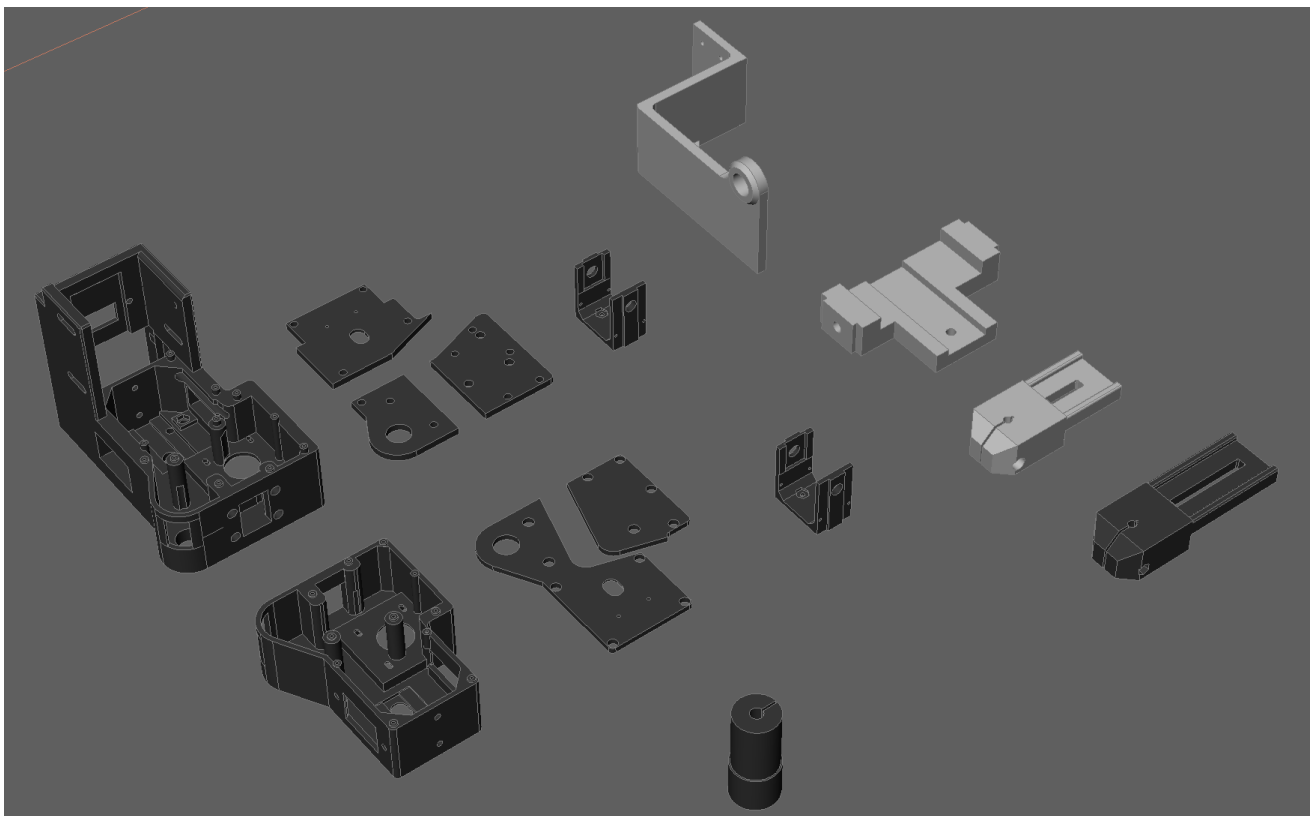


## Panobot, Motorized panoramic/timelapse head



### Frame (<https://www.thingiverse.com/thing:3042983>):

For the frame, print all the components, check if the diameters for the bearings are correct, the grey components are optional for the timelapse module.



## Controller:

For the controller, you need:

- Arduino nano
- 128x64 OLED LCD ic2 display:



- IR Controller V2 Makeblock and IR receiver led:

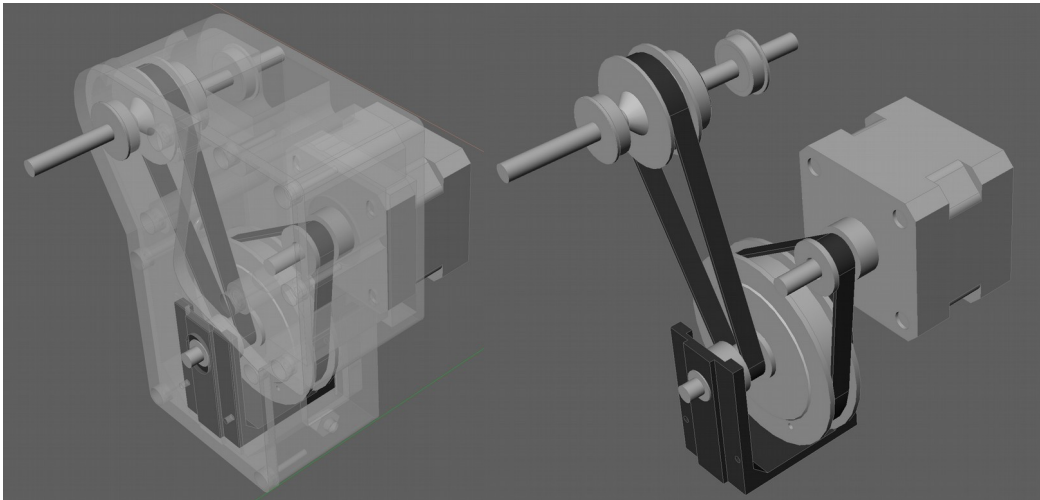


You can use an other one but the ir codes used in the arduino code are from this remote controll.

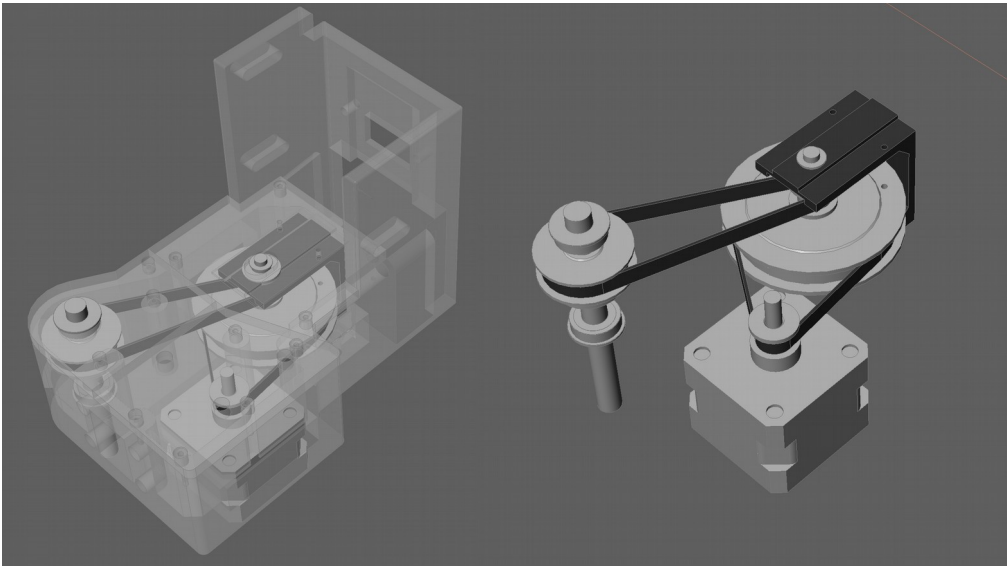
## Gearboxes:

Vertical gearbox

:



Horizontal gear:

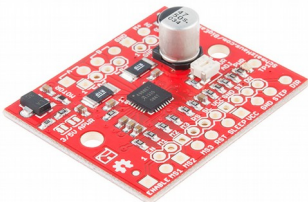


Needed for the gears:

- 2 axis, 1 pc 5mm and 1 pc 8mm.
- 2 nemo17 steppers
- lange bearings, 4 pc inner 5mm, outer 8mm
- lange bearings, 4 pc inner 5mm, outer 16mm
- lange bearings, 2 pc inner 8mm, outer 16mm
- socket bolts, nuts, torx screws etc.

- 2 big easy stepper drivers:

<https://www.sparkfun.com/products/12859>



- wiring

- TG2 Timing Pulley 40 teeth Bore 1 pc 8mm 1pc 5mm:

<https://www.aliexpress.com/item/Sale-5pcs-40-teeth-GT2-Timing-Pulley-Bore-8mm-Aluminum-alloy-belt-Width-6mm-for-3D/2007244839.html?spm=a2g0s.9042311.0.0.27424c4dXekkNW>

**POWGE**



**40T-GT2- $\Phi$ 5/6.35/8/10mm  
For Belt W=6mm**

- TG2 Timing Pulley 89 teeth Bore 5mm 2 pc:

<https://www.aliexpress.com/item/POWGE-1pcs-80-Teeth-GT2-Timing-Pulley-Bore-5-6-35-8mm-for-width-6mm-GT2/32783298317.html?spm=a2g0s.9042311.0.0.27424c4dQROx8z>

**POWGE**



**80T-GT2- $\Phi$ 5/6.35/8/10mm  
For Belt W=6mm**

- TG2 Timing Pulley 16 teeth bore 5mm 2 pc:

<https://www.aliexpress.com/item/POWGE-16-teeth-GT2-Timing-Pulley-Bore-5mm-for-Rubber-2GT-Open-Timing-belt-width-6mm/1744808992.html?spm=a2g0s.9042311.0.0.27424c4dQROx8z>

**POWGE**



**16T-GT2- $\Phi$ 5mm  
For Belt W=6mm**

- TG2 Timing belt perimeter 202mm 6mm width:

<https://www.aliexpress.com/item/POWGE-10pcs-GT2-timing-belt-Perimeter-202-204-208-220-228-width-6mm-Teeth-101-102/1846521574.html?spm=a2g0s.9042311.0.0.27424c4dNqknS2>

**POWGE**



**2GT Belt Width 3/6/9mm  
Perimeter 202/204/208/220/228mm**

## Camera connector:

Nodal ninja camera plate 2 CP2



## Software:

See: <https://github.com/Hanskes/panobot>  
for last version of the firmware for the panobot.

Software for post processing follows later.