Parts of the microscope: Loupe

I. Ligth Stage

1. Light stand
2. Lens adapter
3. Battery adapter

II. XYZ Stage

4. Y axis
5. X axis
6. Z axis

III. Optical Stage

7. Camera base
8. Objective adapter/ Large objective adapter
9. Cover
10. Zipper

IV. Base

11. Base

V. Gears & Knobs

12. Gear_1 (x2)
13. Gear_2 (x1)
14. Knob (x5)
15. Knob_1 (x3)

VI. Bolts and set screws

16. Hex socket allen bolt M2x6mm (x4)
17. Hex socket allen bolt M4x12mm (x3)
18. Hex socket allen bolt M4x30mm (x2)
19. Flat head socket allen bolt M3x16mm (x2)
20. Set screw M3x4mm (x3)
21. Hex nut bolt M3 (x1)

VII. Camera

22. USB cam model ELP usbfhd01m- l2

VIII. Others

23. Potentiometer 10K
24. Potentiometer knob
25. Cr2032 battery
26. Chip LED SMD 3V 1W
27. Objective 10x, 20x, etc…
28. Cable de cobre positivo/ negativo

Printing parts, time and filament amount:

A. Light stand + Lens adapter + Battery adapter = **Light_stand** ~7h 46m y ~59g
B. Y axis = ~3h 7m y ~19g
C. X axis = ~5h 4m y ~43g
D. Z axis = ~3h 27m y ~29g
E. Camera base + Objective adapter + Zipper = **Optical_stage** ~6h 55m y ~54g
F. Cover
G. Base = ~8h 55m y ~64g
H. Gear_1 (x2) + Gear_2 (x1) + Knob (x5) + Knob_1 (x3) = **Gears&Knobs** ~3h 15m y ~20g

Total: ~38h y ~288g

Wires

Positive: Red
7 cm wire (x2)

1. LED to potentiometer → stripping wire 0.5 cm and 1.5 cm by end
2. Battery to potentiometer → stripping wire 1.5 cm both ends

Negative: Black
8.5 cm wire (x1)

1. LED to battery → stripping wire 0.5 cm and 1.5 cm by end

★ *The stripped part 1.5 cm from the cable doubles as a ring and is connected to the potentiometer.*
★ *Use heat shrink*