



Andonstar AD407/ AD409 Ring Light

loopj

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Summary

Ring light attachment for the Andonstar AD407 soldering microscope

[Gadgets](#) > [Other Gadgets](#)

Ring light attachment for the Andonstar AD407 soldering microscope. Can be printed without supports, place all models face down.

Bill of materials

- Adafruit QT Py 2040 (<https://www.adafruit.com/product/4900>)
- Adafruit NeoPixel Ring 16 RGBW (<https://www.adafruit.com/product/2854>)
- Clear filament for bottom piece (I used Polymaker PolyLite Clear PETG)

Code

Some simple code to set the brightness level based on button presses
<https://github.com/loopj/microscope-ring-light>

Assembly

- Solder 5V, GND, and Data In lines from the QT Py to the NeoPixel Ring using suitable wire (see photo)
- Insert QT Py PCB and NeoPixel PCB into the “bottom” printed piece
- Unscrew the lens protector cap from the microscope
- Insert the lens cap into the hole in the “top” printed piece

- Insert the button piece into the small hole in the top piece
- Screw the lense cap back onto the microscope, with the top piece attached
- Snap-fit connect the bottom piece to the top piece

Potentially works with similar microscopes like the ADSM302.

Model files

bottom.stl



top.stl



button.stl



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