Bill of Materials
RGB LED Wake-up Lamp

1. 1 [ESP32 DEV Kit V1 microcontroller](https://www.amazon.com/dp/B071JR9WS9/?coliid=I2AOSXLWAJ931&colid=1OQX91BAF7U6I&psc=1&ref_=lv_ov_lig_dp_it)
   https://www.amazon.com/dp/B071JR9WS9/?coliid=I2AOSXLWAJ931&colid=1OQX91BAF7U6I&psc=1&ref_=lv_ov_lig_dp_it
   You can get these cheaper if you buy more than 1

2. 2. 1 [170 Tie point solderless breadboards](https://www.amazon.com/hz/wishlist/genericItemsPage/1OQX91BAF7U6I?type=wishlist&_encoding=UTF8)
   https://www.amazon.com/hz/wishlist/genericItemsPage/1OQX91BAF7U6I?type=wishlist&_encoding=UTF8

3. 1 [Strip of RGB LEDS 5VDC at a density of 60 leds/m](https://www.amazon.com/dp/B01MG49QKD/?coliid=I24YII0YAHB75Z&colid=1OQX91BAF7U6I&psc=1&ref_=lv_ov_lig_dp_it)
   https://www.amazon.com/dp/B01MG49QKD/?coliid=I24YII0YAHB75Z&colid=1OQX91BAF7U6I&psc=1&ref_=lv_ov_lig_dp_it
   Make sure that you get 5VDC lights anything more than that can not be powered without an outside power source

4. 3 [Butt end wire connectors 22 ga](https://www.amazon.com/gp/product/B07G7DZWBQ/ref=ppx_yo_dt_b_asin_title_o01_s00?ie=UTF8&psc=1)
   https://www.amazon.com/gp/product/B07G7DZWBQ/ref=ppx_yo_dt_b_asin_title_o01_s00?ie=UTF8&psc=1

5. ~4 inches of [22 ga solid core hookup wire](https://www.amazon.com/dp/B07TX6BX47/?coliid=I25JDSC0LYZRBS&colid=1OQX91BAF7U6I&psc=1&ref_=lv_ov_lig_dp_it)
   https://www.amazon.com/dp/B07TX6BX47/?coliid=I25JDSC0LYZRBS&colid=1OQX91BAF7U6I&psc=1&ref_=lv_ov_lig_dp_it
   Telephone wire will also do

6. 1 [470 Ohm resistor 1/2W](https://www.amazon.com/dp/B0185FK574/?coliid=I1S0GELB5KSBGU&colid=1OQX91BAF7U6I&psc=1&ref_=lv_ov_lig_dp_it)
   https://www.amazon.com/dp/B0185FK574/?coliid=I1S0GELB5KSBGU&colid=1OQX91BAF7U6I&psc=1&ref_=lv_ov_lig_dp_it

7. 1 32 oz [Chinese food container](https://www.amazon.com/gp/product/B07MG7JS2H/ref=ppx_yo_dt_b_asin_title_o04_s01?ie=UTF8&psc=1)
   https://www.amazon.com/gp/product/B07MG7JS2H/ref=ppx_yo_dt_b_asin_title_o04_s01?ie=UTF8&psc=1
   While I bought these from Amazon you can probably get one from your local restaurant next time you order take out.

8. 1 Empty Toilet paper tube

Tools

1. Wire strippers for 22 ga wire
2. Scissors or a Hobby/Xacto knife
3. Heat gun or candle for butt end connectors listed above. Or whatever tool you need for the connectors you have