Bill of Materials
White LED Wake-up Lamp

1. 1 [ESP32 DEV Kit V1 microcontroller](#)
   You can get these cheaper if you buy more than 1
2. 2. 2 [170 Tie point solderless breadboards](#)
3. 1 [Strip of White LEDS 5V at a density of 60 leds/m](#)
   Make sure that you get 5V lights anything more than that can not be powered without an outside power source
4. 2 [Butt end wire connectors 22 ga](#)
5. ~4 inches of [22 ga solid core hookup wire](#)
6. 1 [30A 60V N-Channel Power Mosfet TO-220](#)
7. 1 [10K Ohm resistor 1/2W](#)
8. 1 32 oz [Chinese food container](#)
   While I bought these from Amazon you can probably get one from your local restaurant next time you order take out.
9. 1 Empty Toilet paper tube