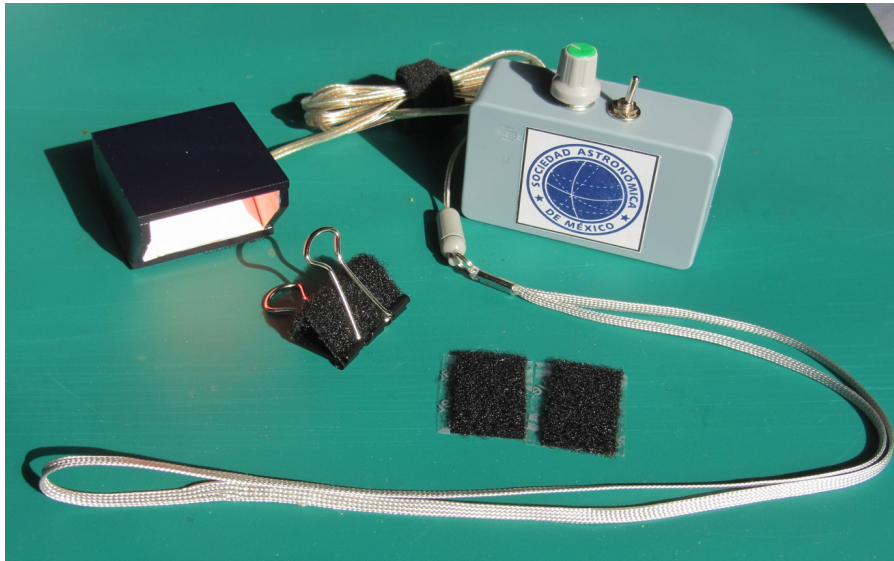


# Astronomy Red Led Lamp

## Design Notes



## Parts List

### Electronics

- Switch
- Potentiometer 500 Ohm
- Potentiometer knob
- Resistor 1K Ohm
- 2x Ultra bright red Led (10mm)
- AA battery holder
- 2x AA batteries
- Wire 50 cm

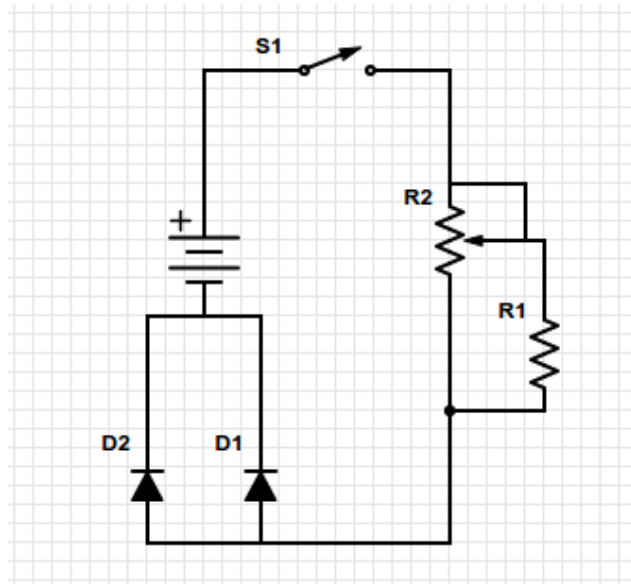
### Additional

- Project box
- MDF board (3mm)
- Self adhesive velcro
- Glue

### Optional

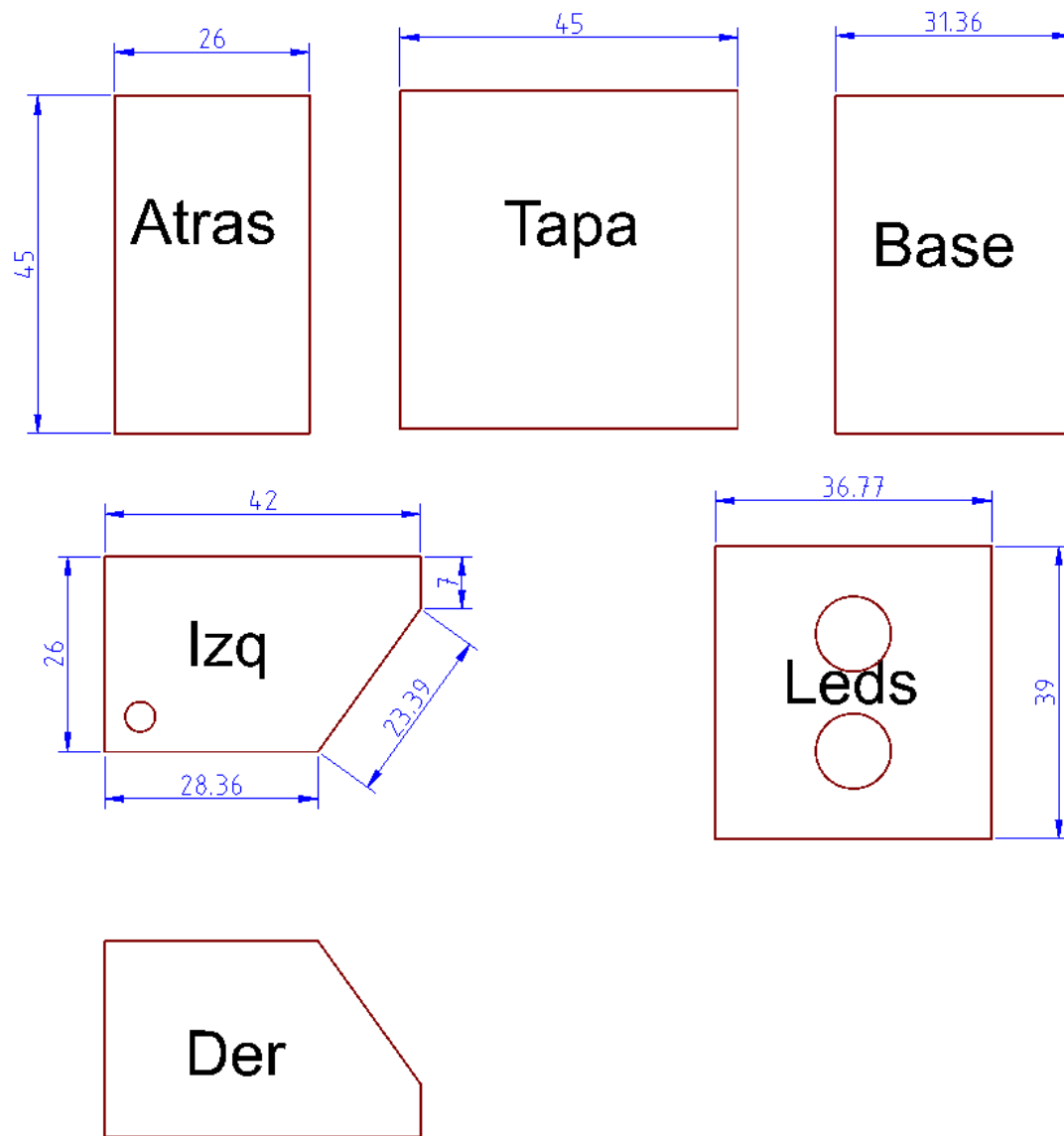
- Cable tie velcro
- Metal binder clip
- Lanyard
- White paint
- Blue paint

## Circuit Design



- S1 switch
- R1 resistor 1K ohm
- R2 potentiometer 500 ohm
- D1 Ultra bright red Led (10mm)
- D2 Ultra bright red Led (10mm)

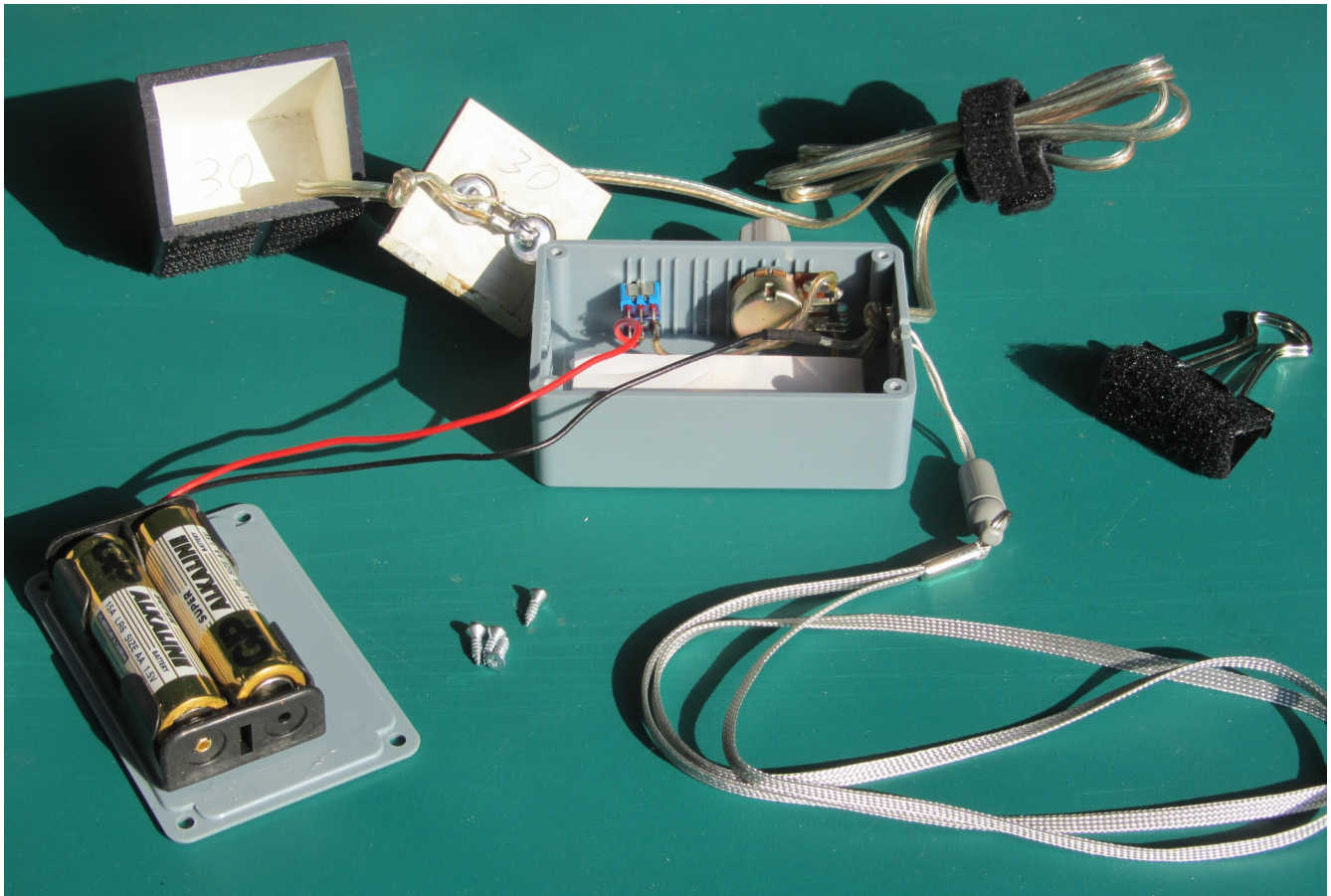
# Lamp Box Design



- Cut out of 3mm MDF board.
- All measurements in millimeters.
- Make a 45 degree bevel on the long side of the Leds part.

Atras	Back
Tapa	Top
Base	Base
Izq	Left
Der	Right
Leds	Leds

# Assembly



## Lamp box

1. Glue all parts but the leds
2. Paint all MDF parts as desired, it's recommended the inside to be white to improve light reflectance.
3. Glue leds in MDF board
4. Solder leds to wire
5. Make a simple knot on the wire to protect from pulls
6. Pass wire through box
7. Glue leds board in place
8. Place adhesive velcro at the bottom of the box

## Project box

1. Make the necessary holes to the box to place the switch, potentiometer, wire pass and lanyard slots.
2. Pass wire into project box and solder all components as shown in the circuit design.
3. Test circuit
4. Mount electronics and battery holder
5. Place batteries and close box.



## Finished Product Pictures

