

Photophobia Protector (Luxmeter)

Introduction

Photophobia means being highly sensitive to light, If you're naturally sensitive you will need to avoid bright sunlight and highly intensive lighting sources.

Unfortunately, there are no specific medications that directly address photophobia and painful light sensitivity; in fact, as noted above, there are some that actually make it worse. Thus, treating photophobia is not as simple as we might like, but there are remedies that can help.

Other general relief options for photophobia include:

A low light intensity room for severe light sensitivity



Components

- LDR (light dependant resistor)
- LCD (with I2C daughter board.)
- Resistors (10kOhm)
- Arduino uno Board
- Jumper wires for connection

Explanation

Using LDR we will measure the intensity of light, as it is linearly related to the voltage.

(this is done by measuring the resistance of the LDR and then converting that to light intensity (in LUX))

When it reaches the maximum intensity allowed an alarming sound from a buzzer will beeb and a warning message appears on the LCD.

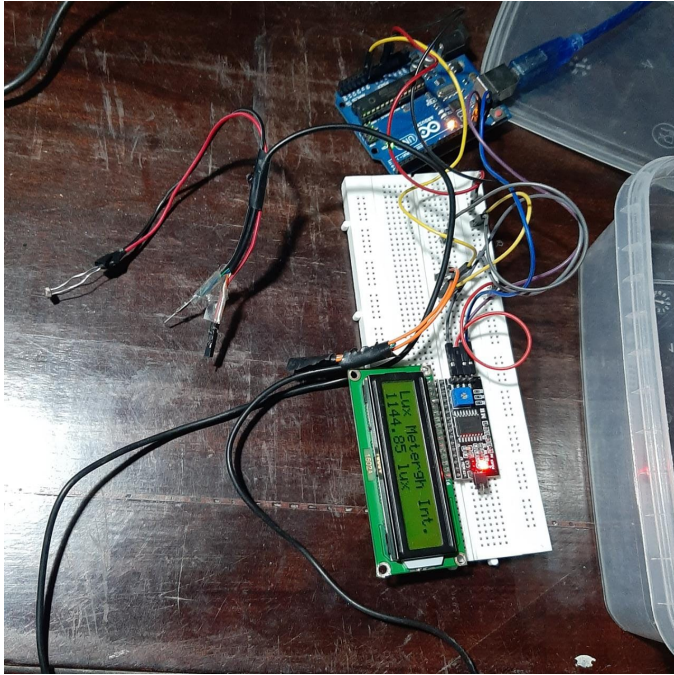
We made the LCD with the backlight turned off so it won't disturb the patient.

Rehabilitation

Usually, people with photophobia can't go out and feel safe at the same time as they don't know whether that light would affect them or not as the symptoms such as migraine headaches, dry eyes, and swelling inside your eye appear after a while.

Using our product they can know that once they enter the place so they can avoid it or take any action like turning the light off or using an umbrella and glasses with photochromic lenses.

Prototype



Simulation

