

# Anti-Sleep & stress measurement system for Students

Sneha Choudhary(2004316)  
Arpan Ghosh(2004321)  
Khushi Datey(2004332)  
Sayak Paul(2004333)

# Idealization Of The Project

We all have a great deal of lethargy when we think about exam preparations and the time we open our books our eyes feel weary. It feels implausible to study properly even for 1 hour So, here goes our smart anti-sleep alarm system guiding your way through your preparations, along with it also measures stress through Pulse rate sensors.



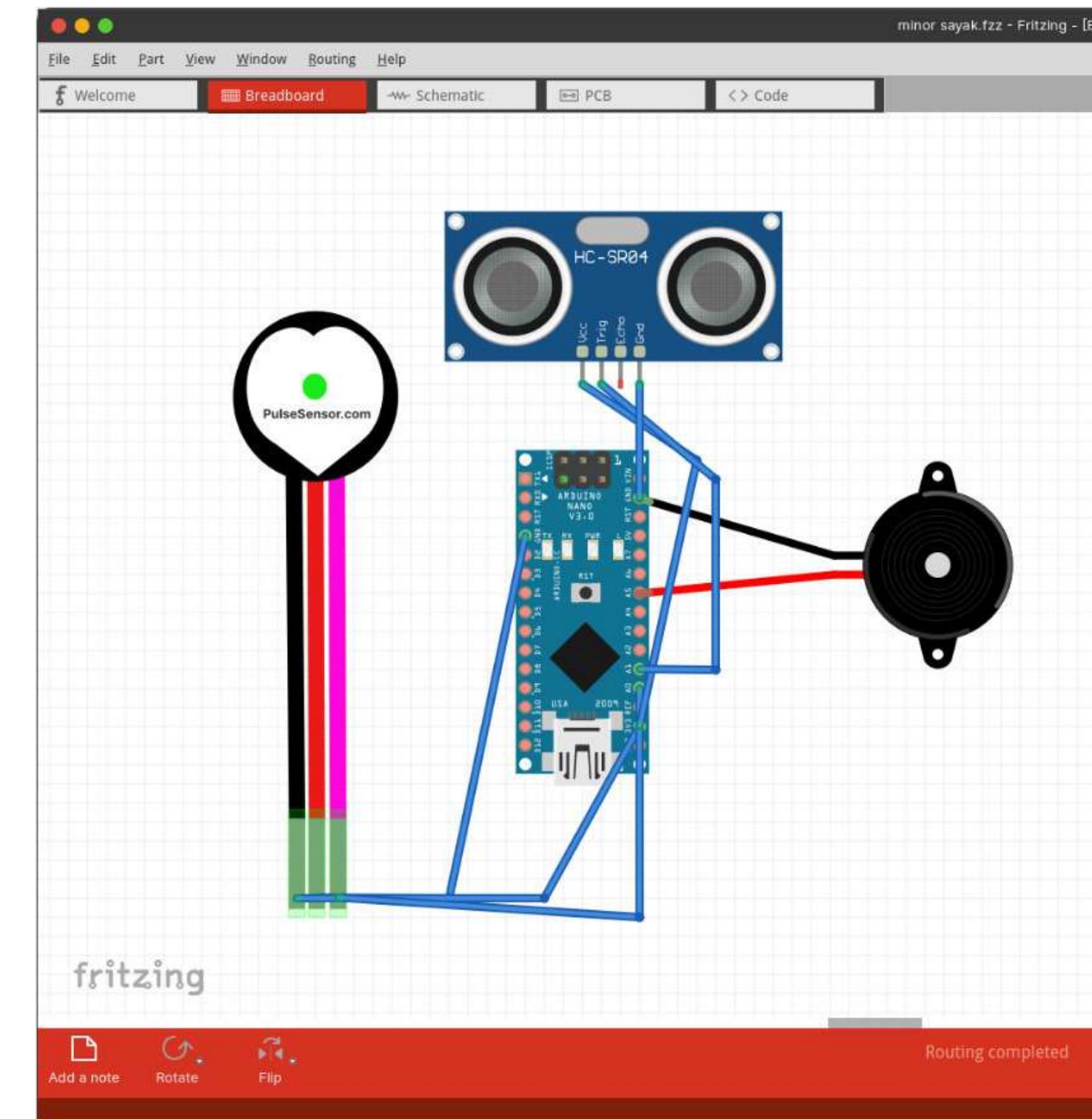
# Motivation Behind The Project



- The main motivation behind the project is to save maximum time of students during their exams & assignment submission, along with measuring stress.
- It indeed helps the students to keep a track of the ratio of their sleeping hours to that of their total studying hours and they can estimate their efficiency during that time. It helps them to manage their time efficiently with proper power naps in between to steer clear of fatigueness .

# CIRCUIT DIAGRAM

- Battery: for power supply
- Switch: for on/off purpose
- Arduino NANO: heart of the project, all functions will be uploaded here. It is the parent of all element connecting them together in a synchronous manner. Also, machine level code will be uploaded here for validating users sleep schedule
- Buzzer: for alert function, beep when user don't blink his eyes for a certain time.
- Eye blink sensor acts the key function in a project, deciding when to trigger buzzer for proper time management
- Pulse Sensor: To measure a pulse from the nerve behind the ears.



# DO IR BASED MOTION SENSOR HARM EYES?

Google do motion sensors emit radiation

All Images Shopping News Videos More Tools

About 2,02,00,000 results (0.51 seconds)

The most common type of active motion detector uses ultrasonic sensor technology; these motion sensors **emit sound waves** to detect the presence of objects. There are also microwave sensors (which emit microwave radiation), and tomographic sensors (which transmit and receive radio waves).

<https://www.fierceelectronics.com/sensors/what-a-motion-sensor>

What is a Motion Sensor? - Fierce Electronics

All Shopping Images Videos News More Tools

About 1,83,00,000 results (0.53 seconds)

Visible light can pass through glass. **Ultraviolet and infrared rays do not pass through the glass.** They are absorbed by the glass.

Byju's <https://byjus.com/question-answer/which-of-the-follo...>

Which of the following can pass through glass? - Byju's

About featured snippets · Feedback

Search for: Does glass block infrared light?

Can infrared work through glass?

What can infrared not pass through?

They show the infrared light emitted by warm objects. Far-infrared light is not detected by digital cameras and will not pass through **clear plastic or water**.

exploratorium.edu <https://www.exploratorium.edu/snacks/infrared-remote>

Infrared Remote: Physics & Light Science Activity - Exploratorium

Search for: What can infrared not pass through?

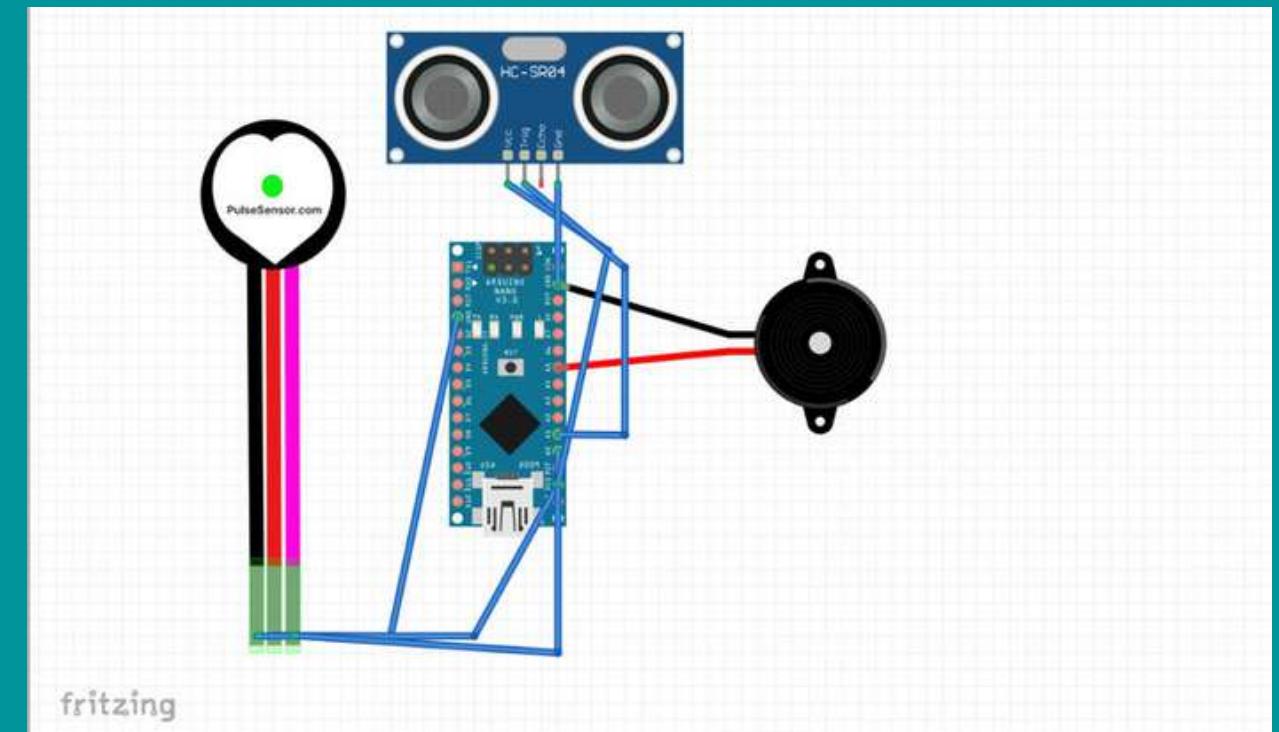
# EXISTING PROJECT

---



- **Helpful for drivers and driving purpose only**
- **Buzzer based simple structure which buzzes at no eye blink**
- **No sleep schedule features**
- **Bulky and Need a lot of maintenance**

- Comes with inbuilt sleep schedule feature**  
**Helpful for everyone who wear specs.**  
**Trying to make it much concise and handy.**  
**Can measure stress**



# PROPOSED PROJECT

---

# Results And Outcomes

---

Positive Case : When the device detects an anomalous behaviour in the eye blinking pattern like no detection of eye blinks within the time initialized it activates the beeper, and Realtime stress measurements

Negative Case : Not everyone wear spectacles.  
It is non rechargeable (It may updated)



# **Future Scopes**

---

Education is one of the most important pillar in the development of any nation. Educated youth means a better and brighter future. Therefore, Anti sleep system has a great deal of future scopes. It can be made available to students all over the world so that they can use it to get rid of lethargy and devote their invaluable time in studying and building their career and hence future, Stress measurement will help in collecting data and help in medical aid.



# Thank You For Your Attention

