

## Exercise – Workspace Ergonomics

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This exercise will help you ensure your workspace is properly set up for game development.

### Part 1 – Setting up your chair and monitors:

Part 1 can be completed at home or in the classroom.

It is important to ensure that your workspace is comfortable to work in for long periods of time without causing any long-term physical issues. These steps will ensure that everything is set up properly:

1. Adjust the height of your chair so that your feet are on the ground and your thighs are parallel to the ground, and that your desk is at elbow height. If the desk is too high you can raise the chair and use a footrest to keep your feet grounded.
2. Adjust the backrest of your chair so that the curve comfortably fits your lower back.
3. Ensure that you are maintaining proper posture while sitting at the computer, keep your back straight and shoulders back.
4. Put the keyboard at the front of the desk so that you don't have to reach as far to type, you can also use the stands on the back of the keyboard to tilt it at an angle that's comfortable for you.
5. Make sure that the top of your monitors are at your eye level when sitting down.

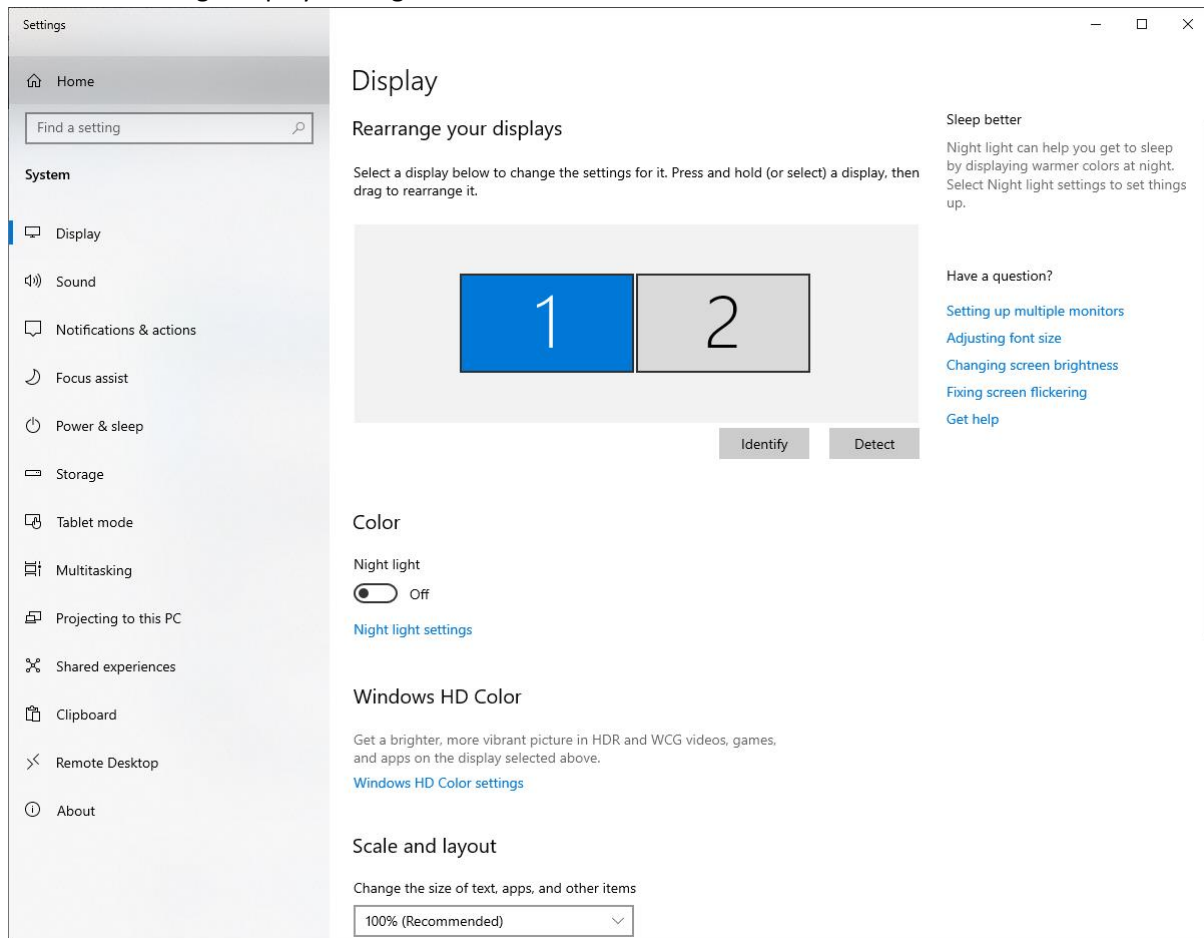
### Part 2 – Adjust the colours of your monitors:

In this part we will be looking at how we can automatically adjust the colours your monitors display based on the time of day, you will be shown how to do it either using the settings menu in windows 10 or through a program you can install. Both methods will reduce the amount of blue light your monitors put out, which will more closely match the lights you will have on at night and reduce eye strain when working after hours. It's possible that one or both of these options won't work if you're doing this exercise in a classroom, but you can try either one on your computer at home.

#### Option 1 – Windows 10 Night Light:

Night Light is a setting introduced in Windows 10 that can automatically change the colours based on the time of day. It does this using your system clock so make sure the time being displayed on your PC is accurate.

- To turn on Night Light you need to open the display settings, you can do this by either searching for display settings in the windows menu or right clicking on your desktop and selecting “Display Settings”.



- Turn on Night Light in the “Colour” section, turning it on should make it display what time it will activate (or deactivate if you’re doing this at night)

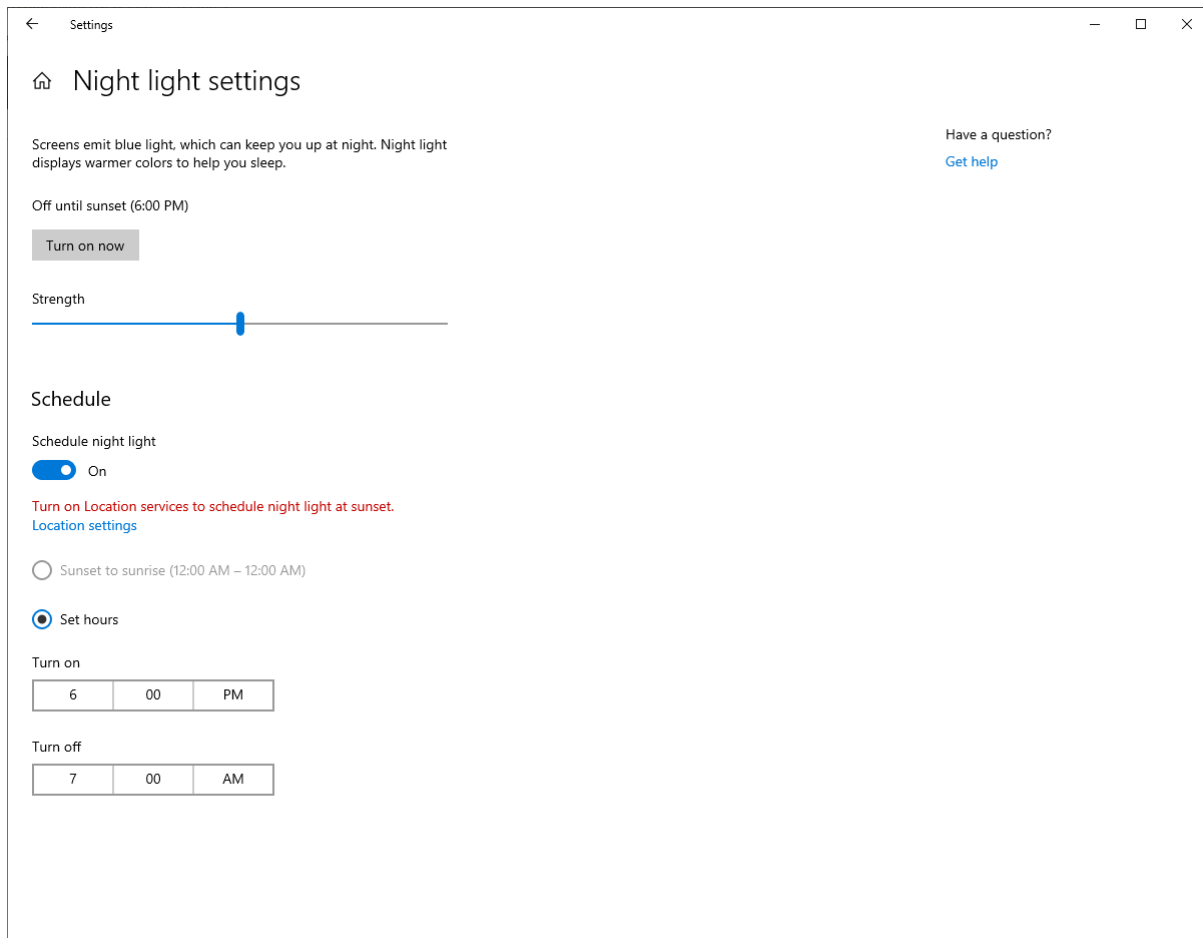
## Color

Night light (off until 9:00 PM)



[Night light settings](#)

- You can then select “Night light settings” to adjust how Night Light works if you wish. You can use the slider to change the strength of the effect when it is active, and you can choose when it’s active as well, you can have it run automatically based on when your system thinks the sun will rise and set or choose times manually



### Option 2 – f.lux:

F.lux works similarly to Night Light, but it is a program you can install instead of a built in setting, and it gives you more settings to work with as well.

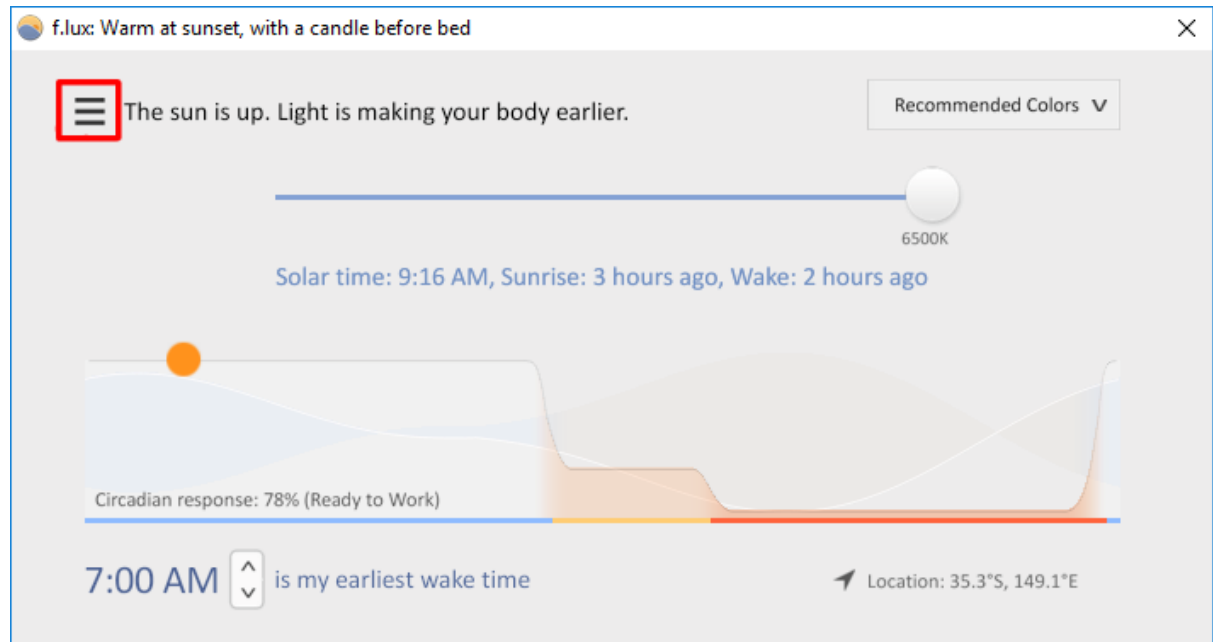
- You can download f.lux by going to [justgetflux.com](http://justgetflux.com) and clicking the blue download button

The screenshot shows the f.lux website homepage. At the top, there's a navigation bar with links for Forum, News, Research, Lighting, and FAQ. The main content area features a large blue button labeled 'Download f.lux (v4.118)' with the text 'Free on Windows, for personal use' and a link 'For corporate use and site licenses, click here'. Below this, it says 'By downloading, you agree to the f.lux EULA' and '(also available for Mac Linux iPhone/iPad Android)'. To the right, there's a section titled 'People all over the world support f.lux' with a link 'Click here to send \$10'. Below that, a section titled 'Sleep more to slow down the virus' mentions 'Research says sleep can help a lot.' and includes a graph showing light spectra. At the bottom right, there's a small image of a computer screen displaying the f.lux interface.

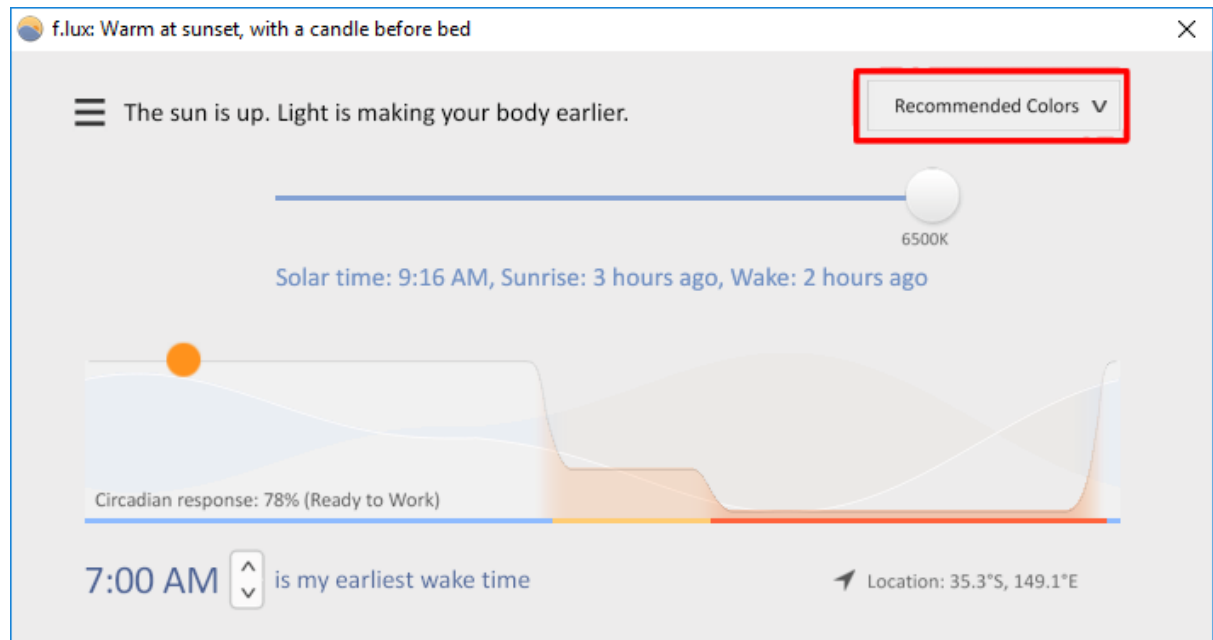
- Once you have installed the program it will ask for your location so it can get accurate data for when sunrise and sunset happen each day. After that you will see the main f.lux window, which has a graphic in the lower half showing you the time and what the colour levels will change to throughout the day.

The screenshot shows the f.lux application window. The title bar says 'f.lux: Warm at sunset, with a candle before bed'. The main content area has a status bar at the top that says 'The sun is up. Light is making your body earlier.' and a 'Recommended Colors' dropdown menu. Below this is a color temperature slider set to 6500K. The text 'Solar time: 9:29 AM, Sunrise: 3 hours ago, Wake: 3 hours ago' is displayed. A large graphic shows a sun icon and a line graph representing the circadian response. The text 'Circadian response: 78% (Ready to Work)' is shown. At the bottom, there's a section for '7:00 AM' with a dropdown arrow and the text 'is my earliest wake time'. The location is set to '35.3°S, 149.1°E'.

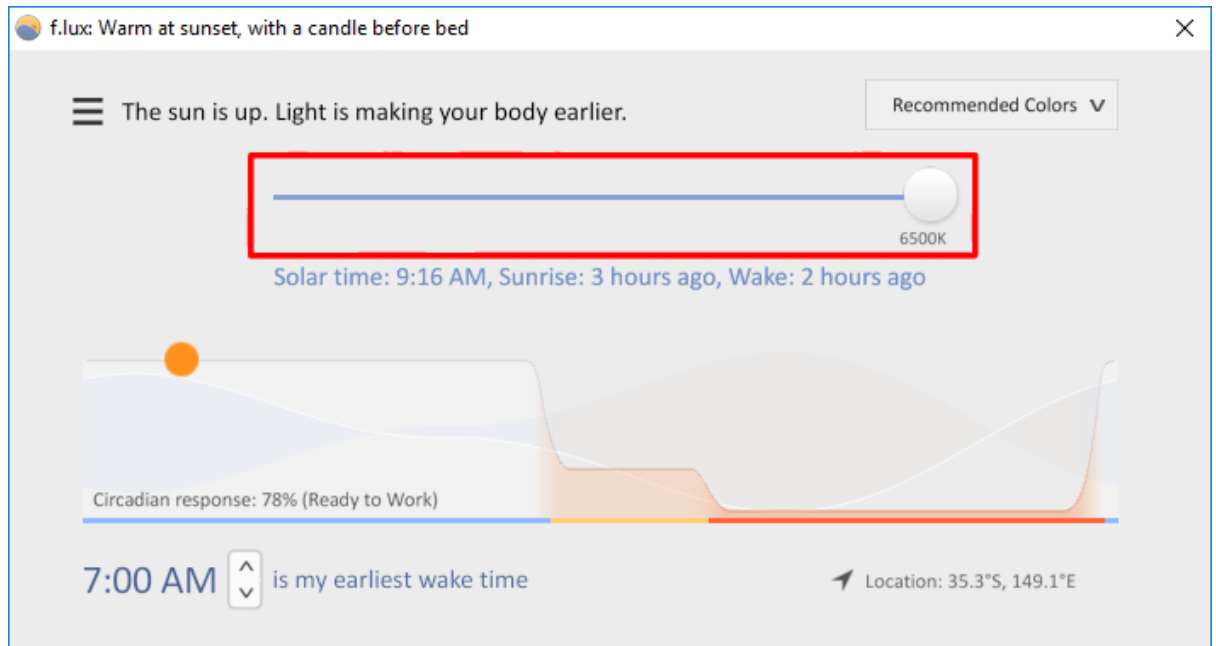
- While Night Light just turns on and off based on the time of day, f.lux lets you set the colour levels for day, night, and sunset separately. You can adjust this by clicking the 3 bars in the top left corner, then choosing “Adjust day and night colours together”. You can also change a number of other settings from that menu, including having it automatically turn off when specific programs are running (this is very useful for art programs).



- If you don't want to change things manually you can choose a preset in the top left corner:



- And you can change the current colour levels using the slider in the middle



With that you should have f.lux set up properly. Feel free to mess with some of the other settings if you want but now you should have a much easier time working on your PC at night.