⚙ Experiment 2

Description

You have seen, that lighting can have an enormous effect on the way the human eye sees colors. Our perception of colors is affected very much by light.

The effect on the dress was already clearly visible. But there are changes which may be more subtle or more drastic.
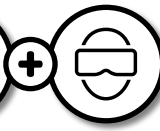
Use a comuter or your smartphone (with a VR headset if possible) and enter the second experiment.

1. Use the buttons to experiment with the different effects.

2. Try different combinations and watch the consequences on the scene and the objects.
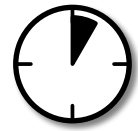
What do you need?

smartphone + VR headset   computer   5 minutes

Online ressources

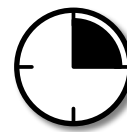designstem.github.io/scenarios/metamerism

✏ Exercise 2

Tasks

1. What did you see? Make a list of all objects in the scene. Do a sketch of the VR setting.

2. What are the basic colors of light in this experiment?

3. How is this method of color mixing called?

What do you need?

pencil   15 minutes

Further reading

https://en.wikipedia.org/wiki/Additive_color

Objects in the scene:

- Element 1: Tomato

- Element 2:

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4. Create a list of objects, different lighting combinations and the results.

Element 1: Tomato

R	G	B	appears
☐	☐	☐	_black_
☒	☐	☐	_red_
☐	☒	☐	_black_
☐	☐	☒	_black_
☒	☒	☐	_red_
☒	☒	☒	_red_

Element 2:

R	G	B	appears
☐	☐	☐	_black_
☐	☐	☐	_____
☐	☐	☐	_____
☐	☐	☐	_____
☐	☐	☐	_____
☐	☐	☐	_____

Element 3:

R	G	B	appears
☐	☐	☐	_____
☐	☐	☐	_____
☐	☐	☐	_____
☐	☐	☐	_____
☐	☐	☐	_____
☐	☐	☐	_____

Conclusion

The element appears in its natural colors, if

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