**How to use the surrounded display**

**History**:

* 03/21/24 smo - Wrote it.
* 06/21/24 smo - Corrected the explanation about switching the mode between 8-bit and 10-bit.

**General info**

* This display operates on Linux.
* The Linux comper PW: **DimssEA!**
* The surrounded display consists of a total of 3 different displays, but it works as one display (so, works as one extended display).
* Resolution of one display is 5120 x 1440, so using all three achieves 15360 x 1440 in pixels.
* DO NOT UPDATE any. Now it’s stable without any updates.

**Running experiment**

* Open the Terminal window by pressing **Ctrl+Alt+T**
* Open Matlab by typing the following command on the Terminal: **PTB3-matlab**
* To run an experiment, use **exp-main.m**
* Within the code, there is an option to use Eyelink (cf. **el** in the code), eye tracker to make sure if subjects are fixated.
* The FOV of the centered screen ranges roughly from -30 to +30. The 30 deg are about the edges of the centered screen (29 deg exactly). We may want to use 5, 10, 15 deg or somewhere within 30 deg.
* For Norick’s experiment (contrast sensitivity on peripheral vision), they used different gray background (grayL, grayM, grayR in the code) to be matched on the DKL space based on its calibration results.
* It is possible to switch between 8-bit and 10-bit modulations: First, press **Ctrl+R** to search the function on the Terminal command. Then, find the function named ‘**toggle x 10bit’**, which switch the mode between 8-bit and 10-bit. Type a single number either **8** or **10** based on which modulation to use. Then, reboot the computer and it will operate on the desired modulation (reboot command: **sudo reboot -h now**). The 8-bit would show the typical Ubuntu purple background, while the 10-bit would show the black background (which is a very dark purple).