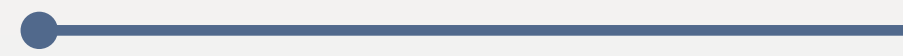


An abstract network diagram with numerous nodes (dots) and connecting lines, some solid and some dashed, creating a complex web-like structure. The nodes are concentrated on the left side and spread out towards the right.

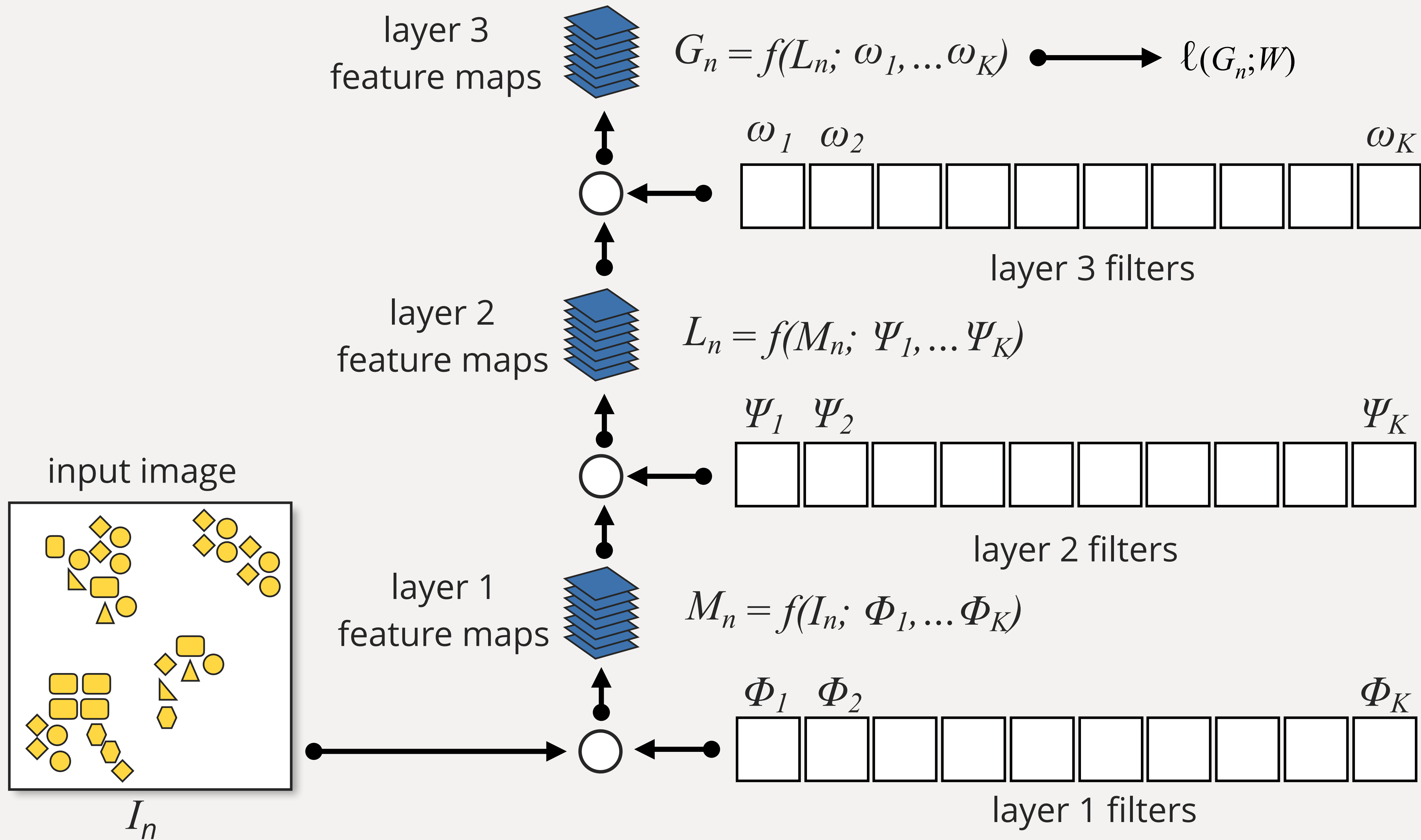
# CNN on Real Images

# How the convolutional neural network works



# How a machine learns

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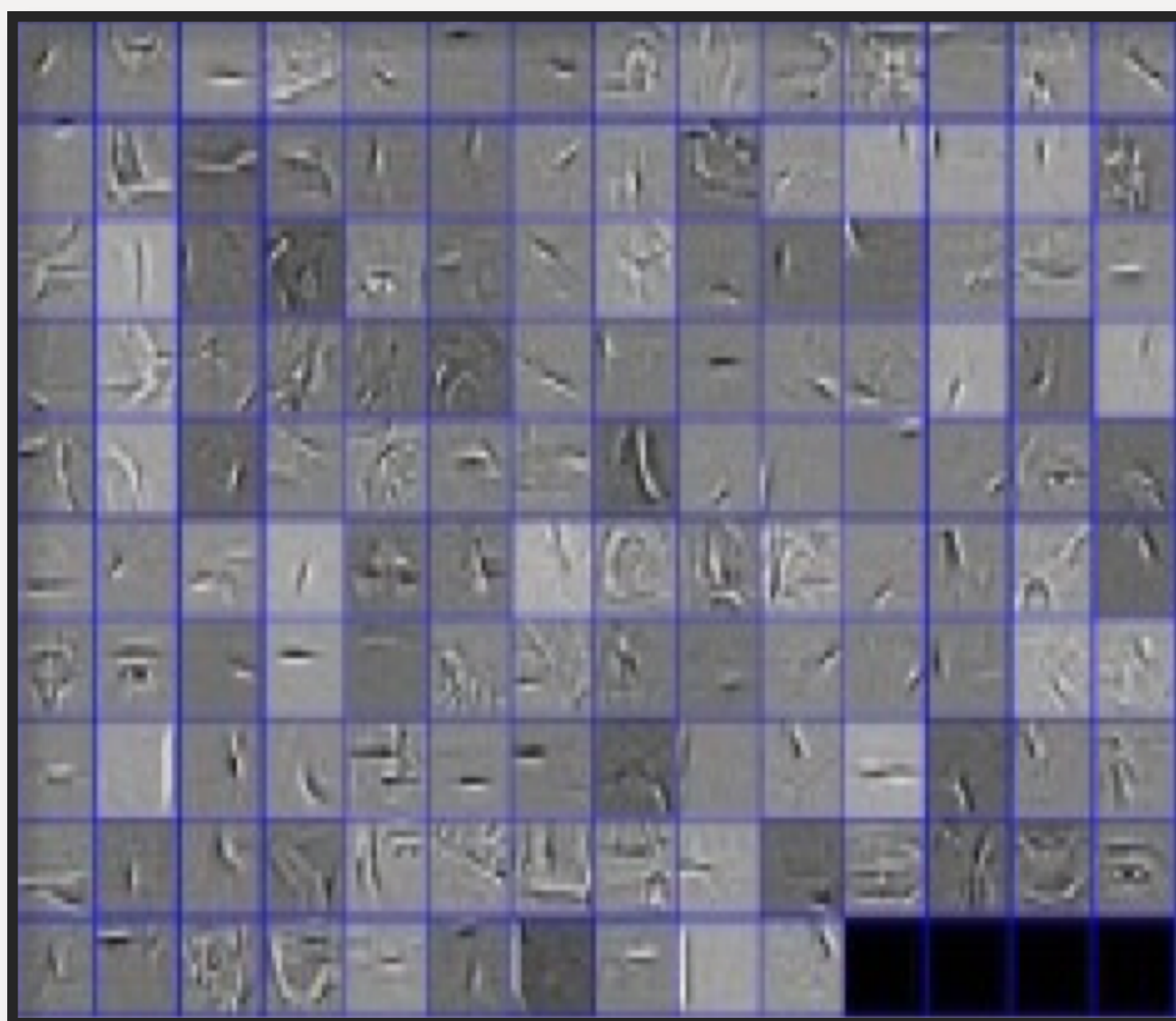




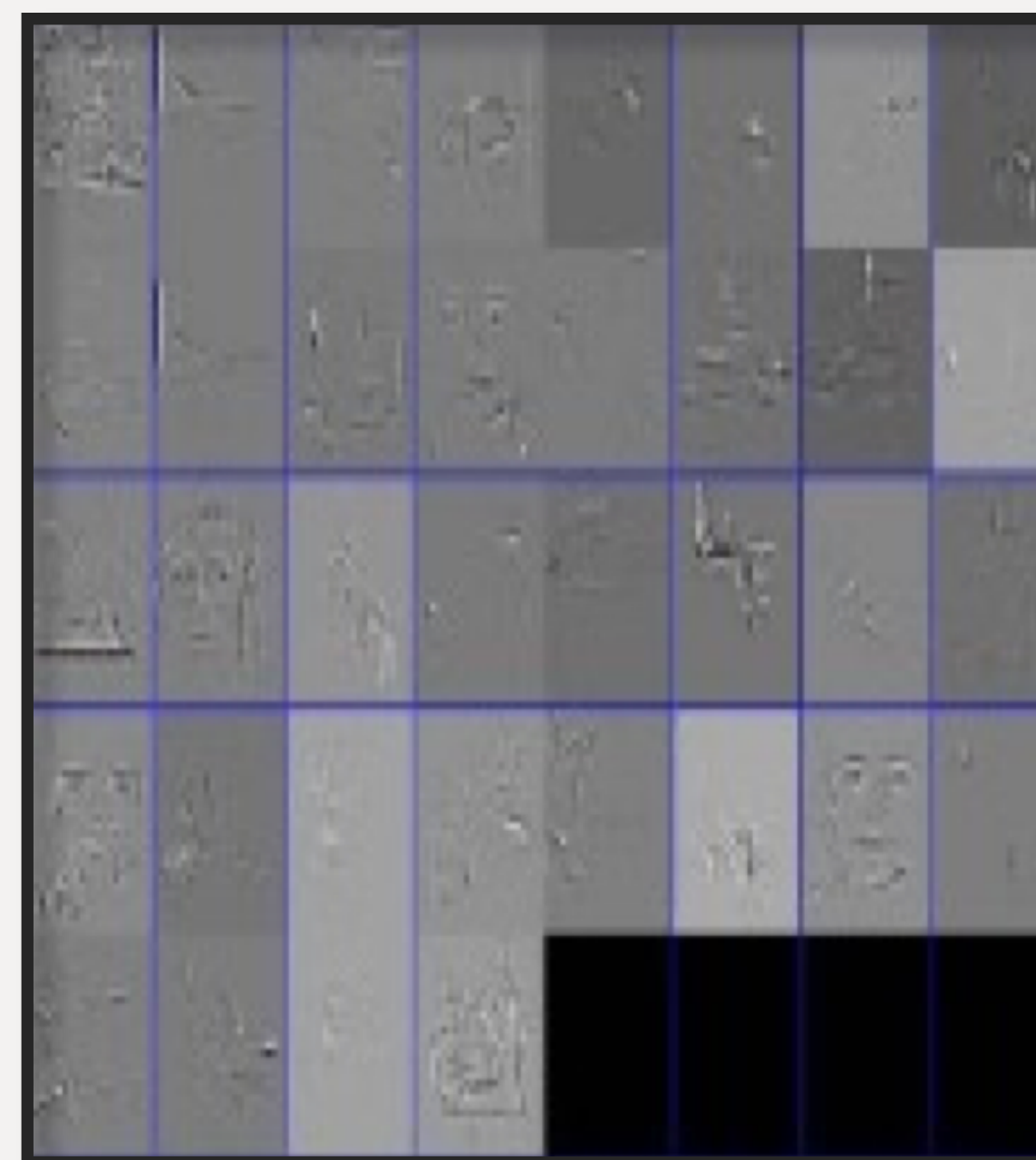
layer 1 filters



layer 2 filters



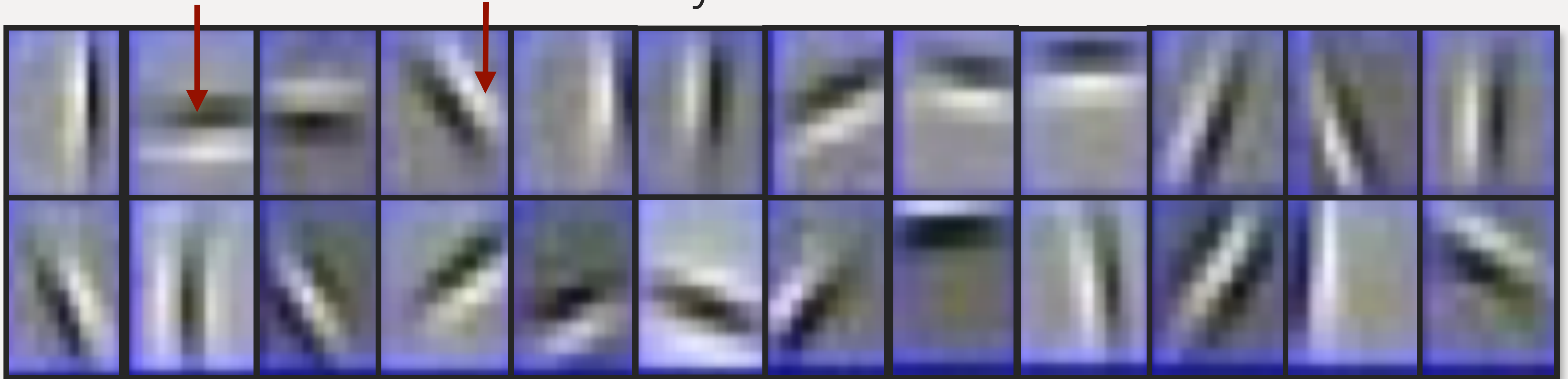
layer 3 filters



negative values

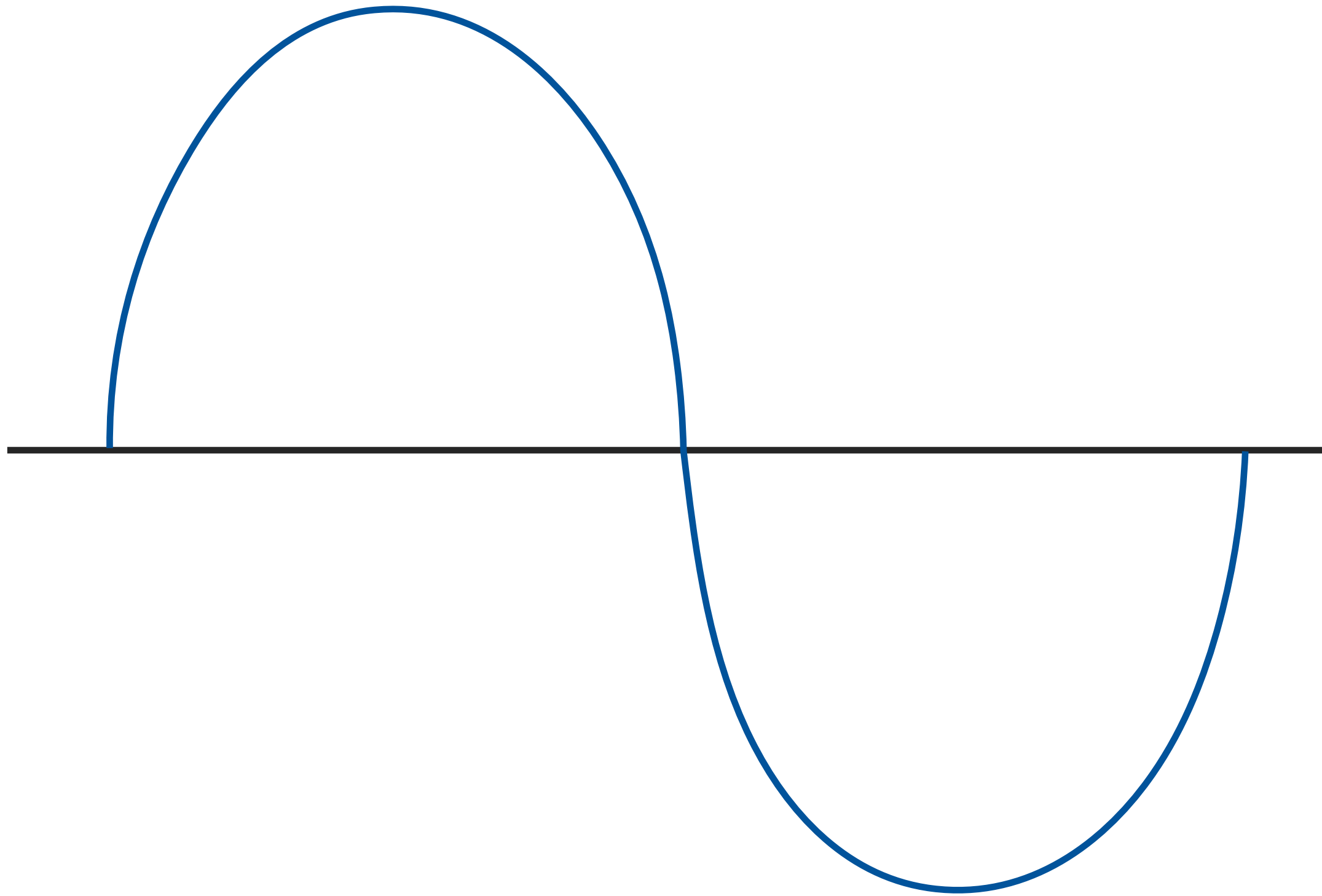
positive values

layer 1 filters

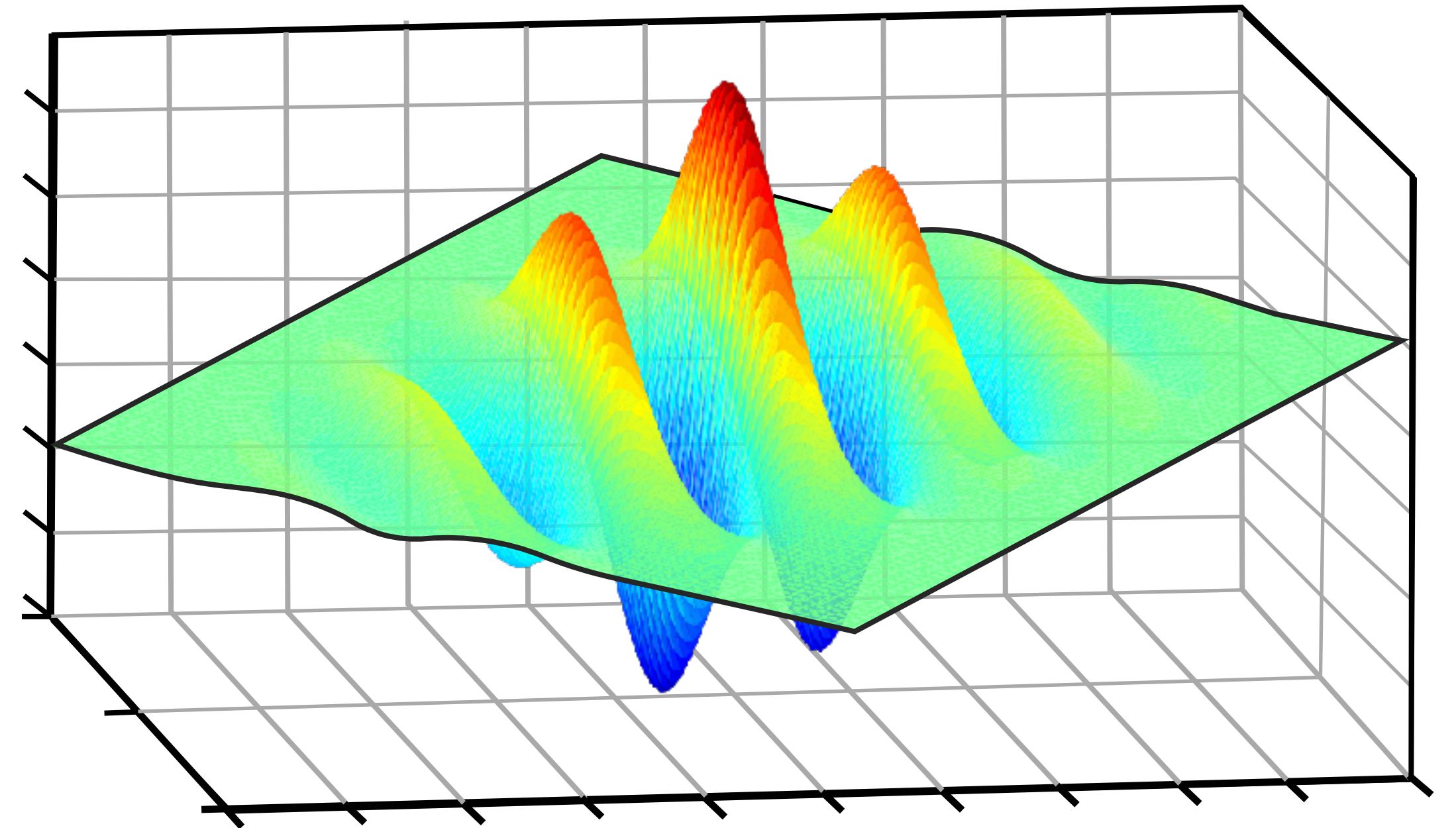




Sine Wave



Two Dimensional Sine Wave

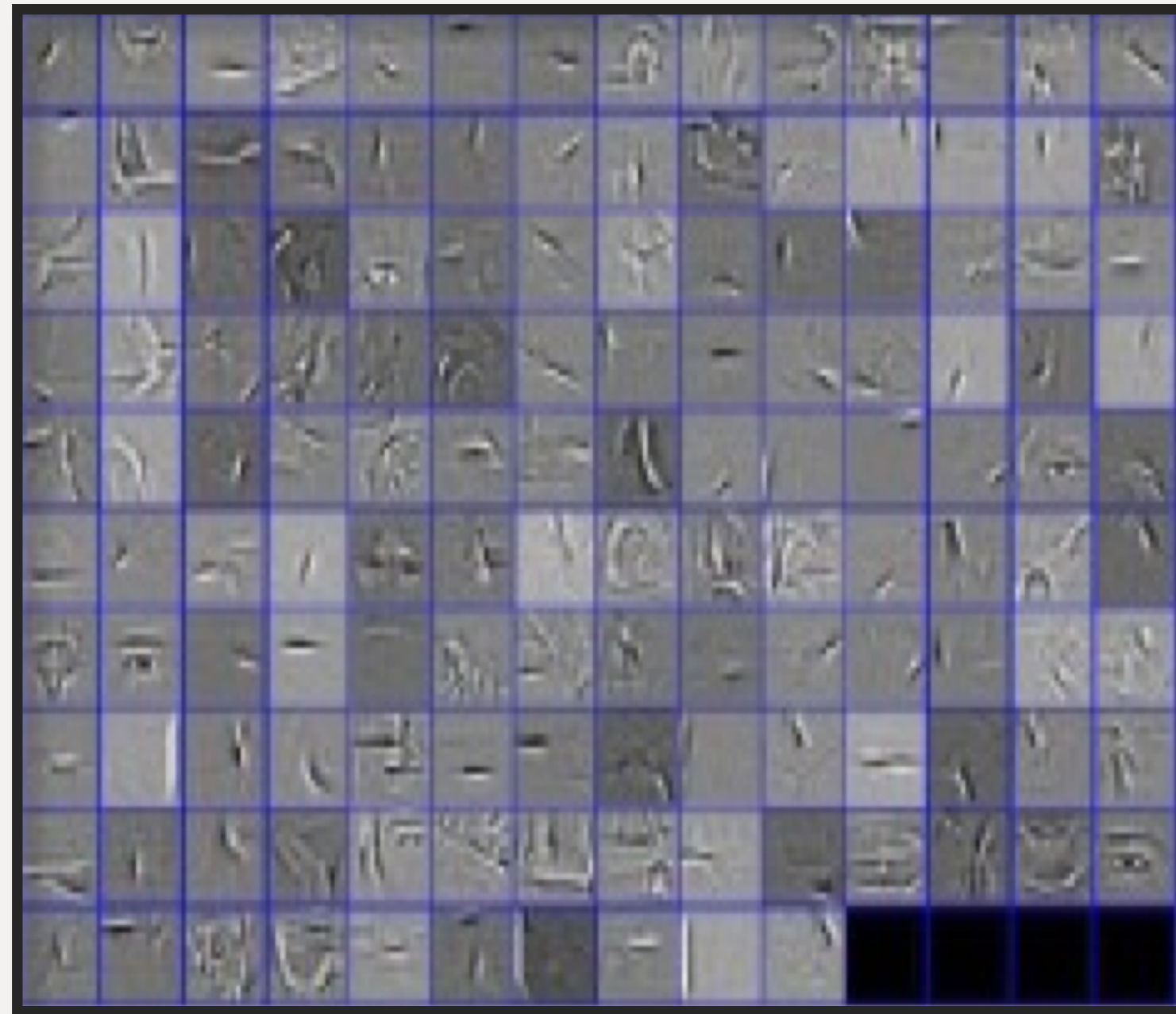


layer 1 filters

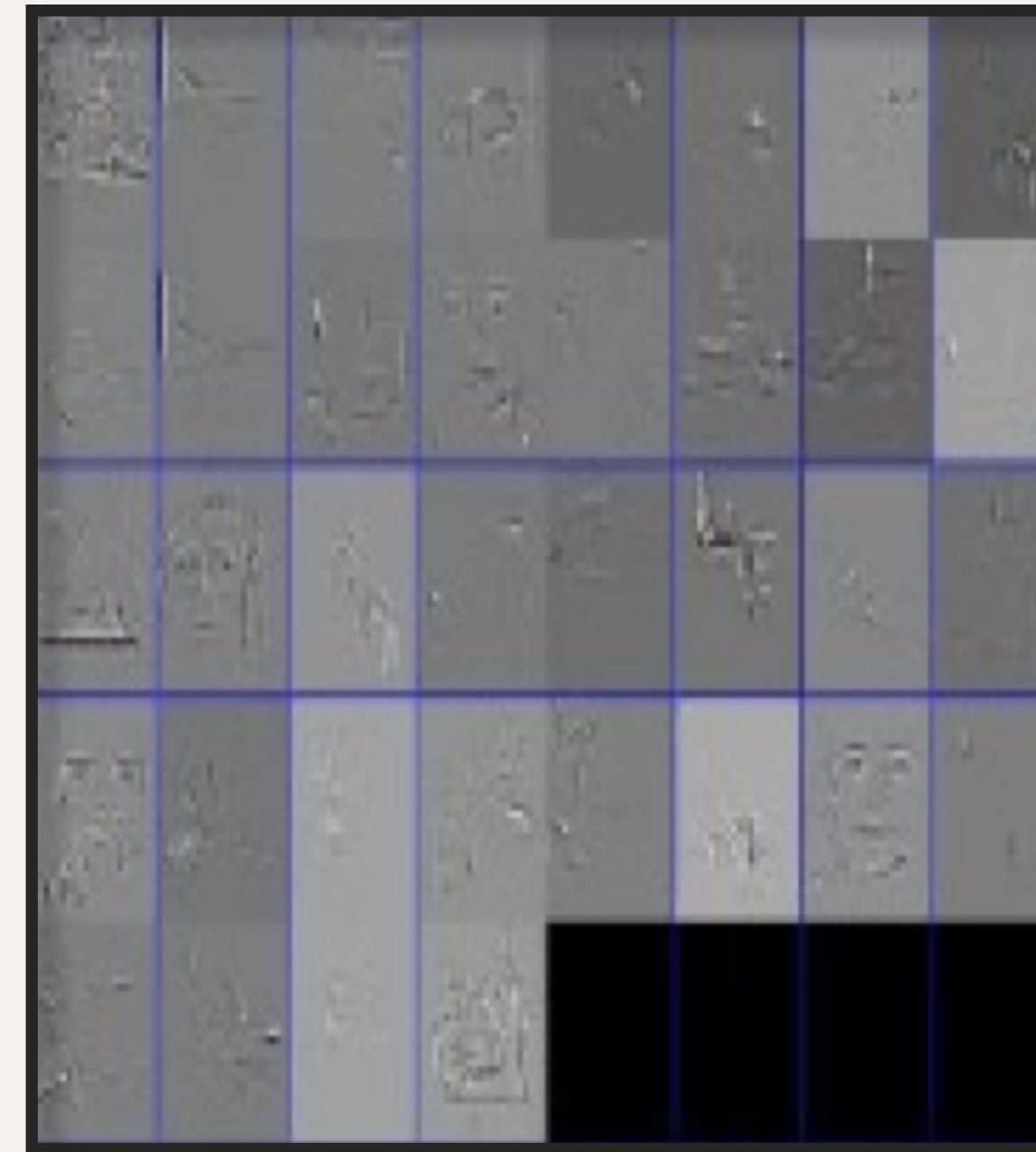
Gabor functions



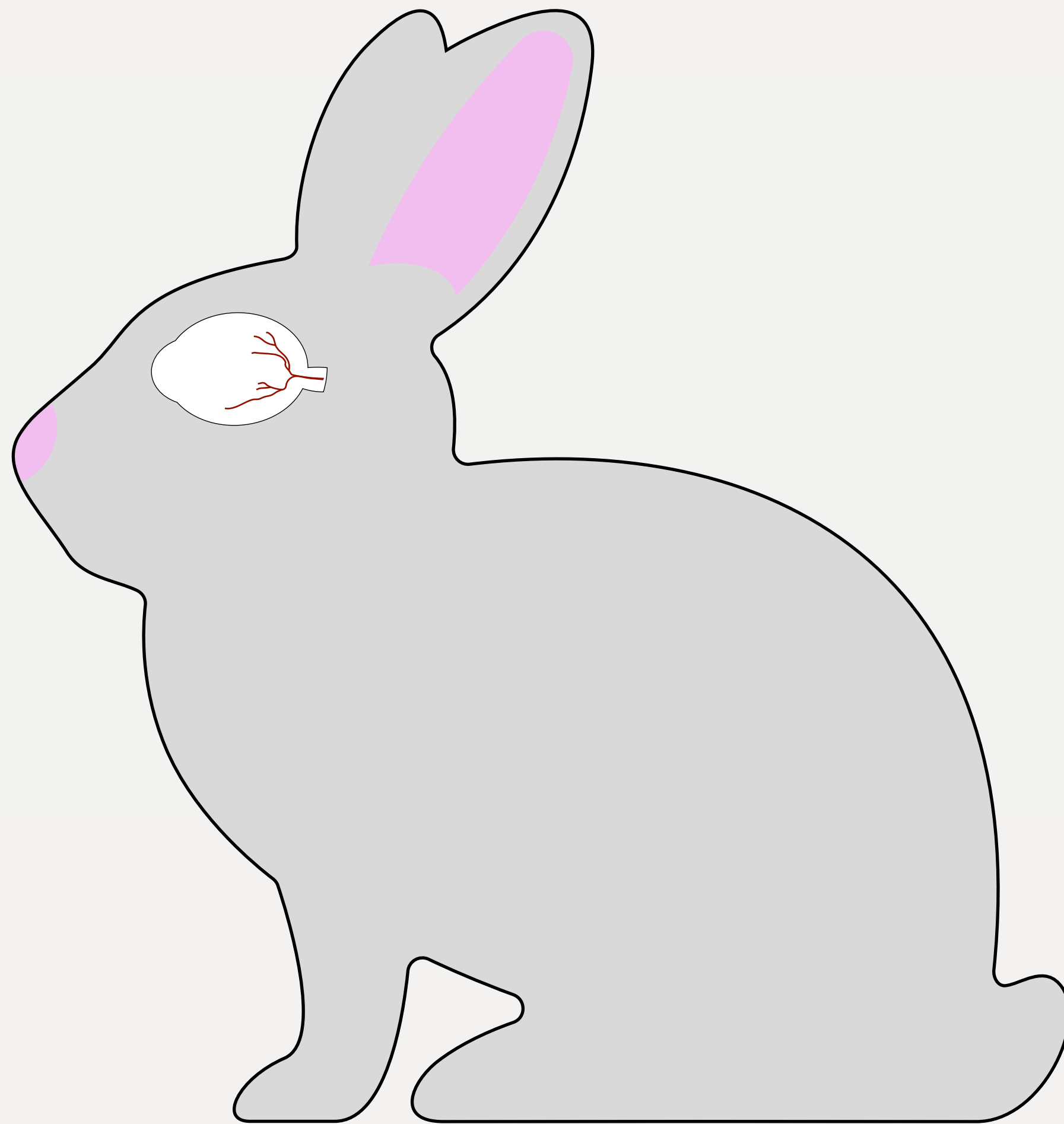
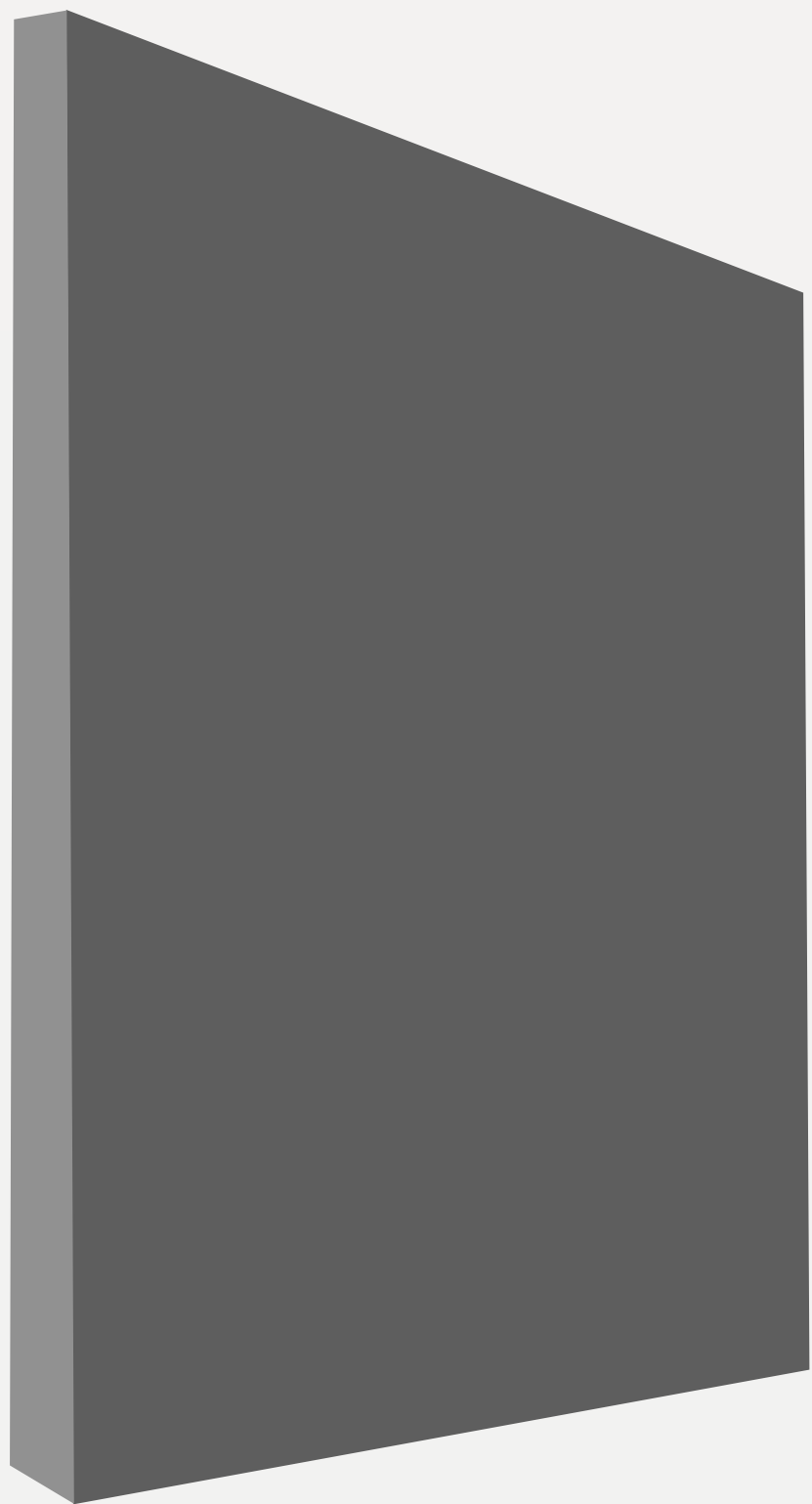
layer 2 filters

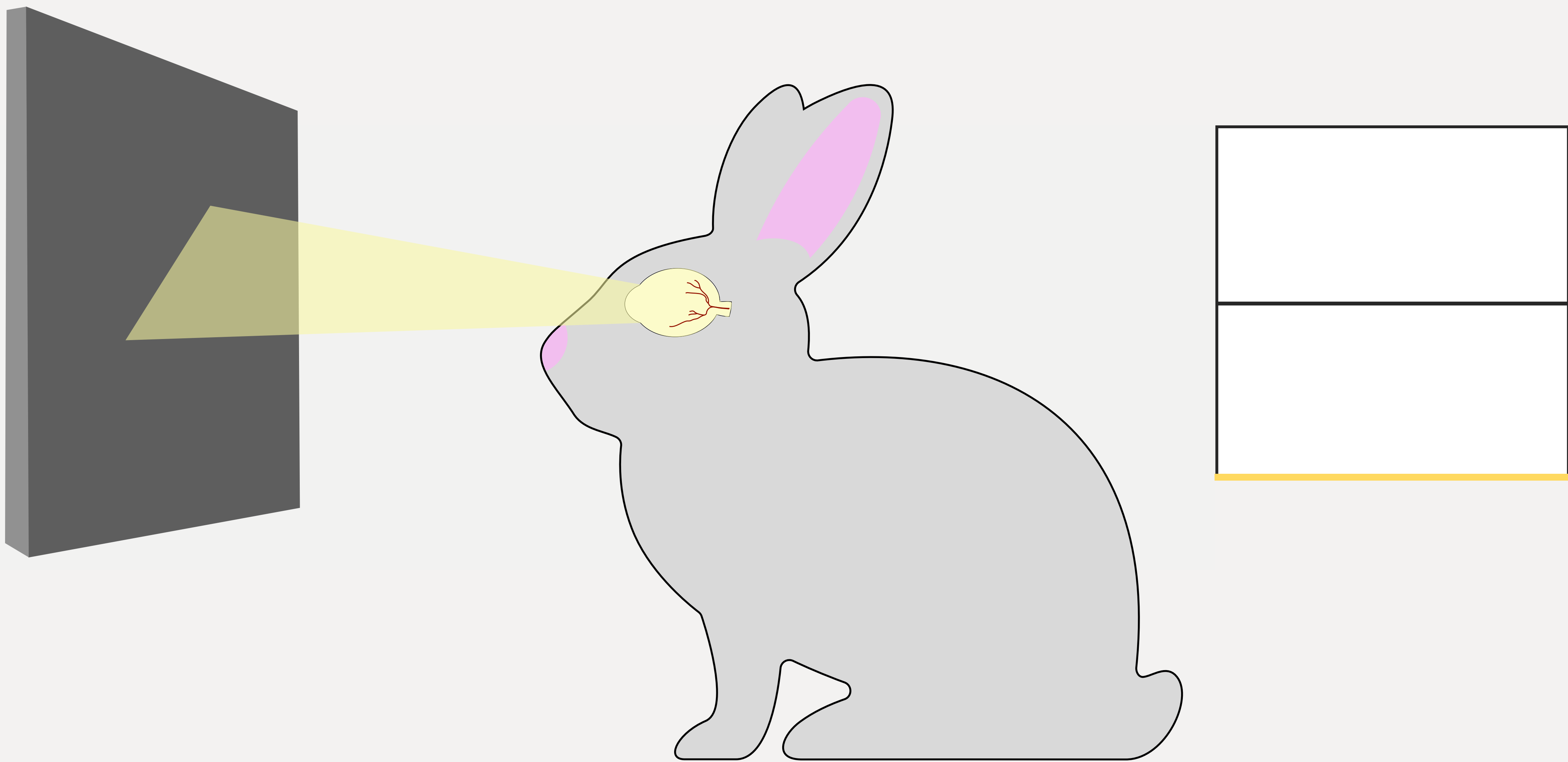


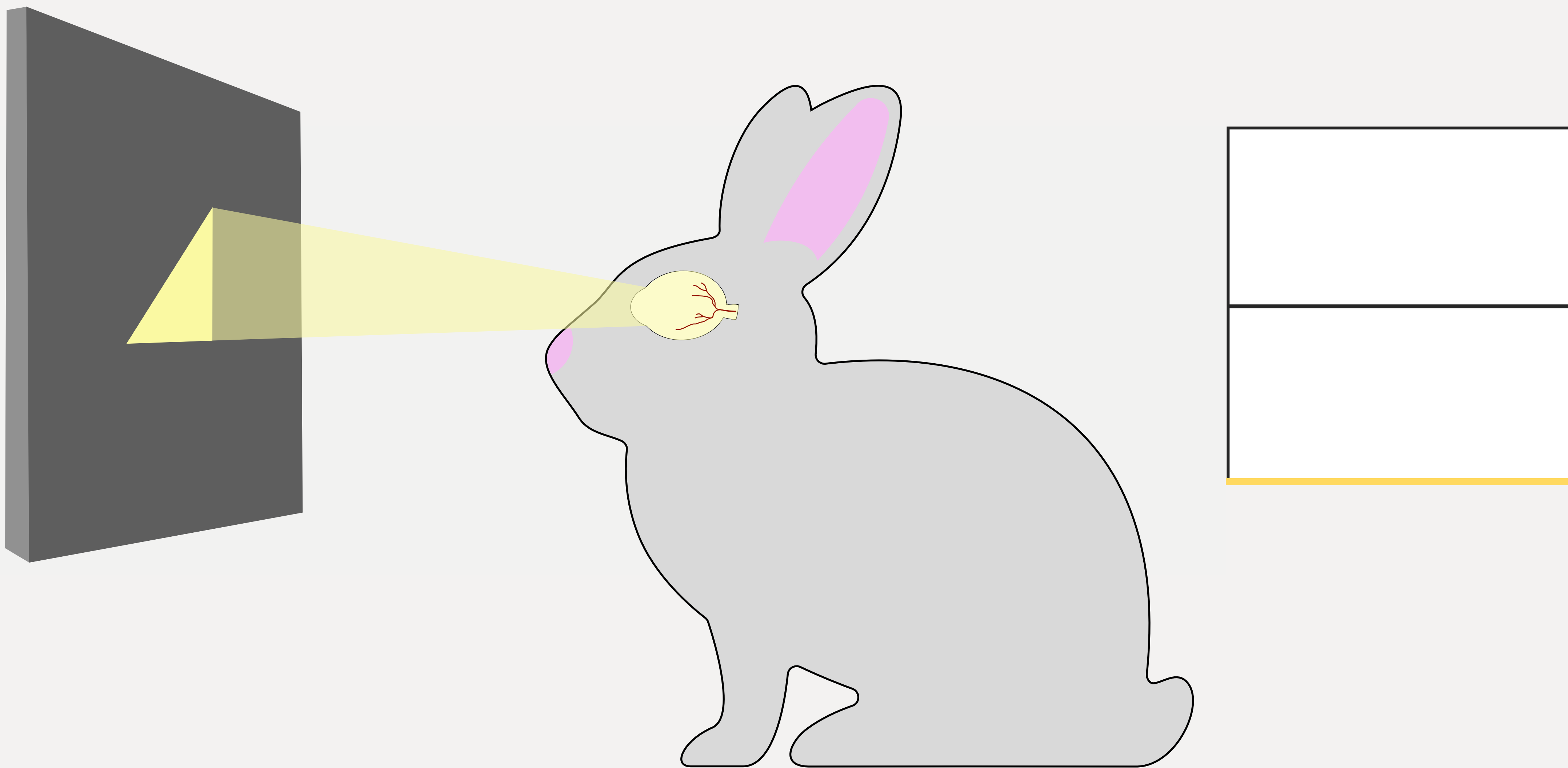
layer 3 filters



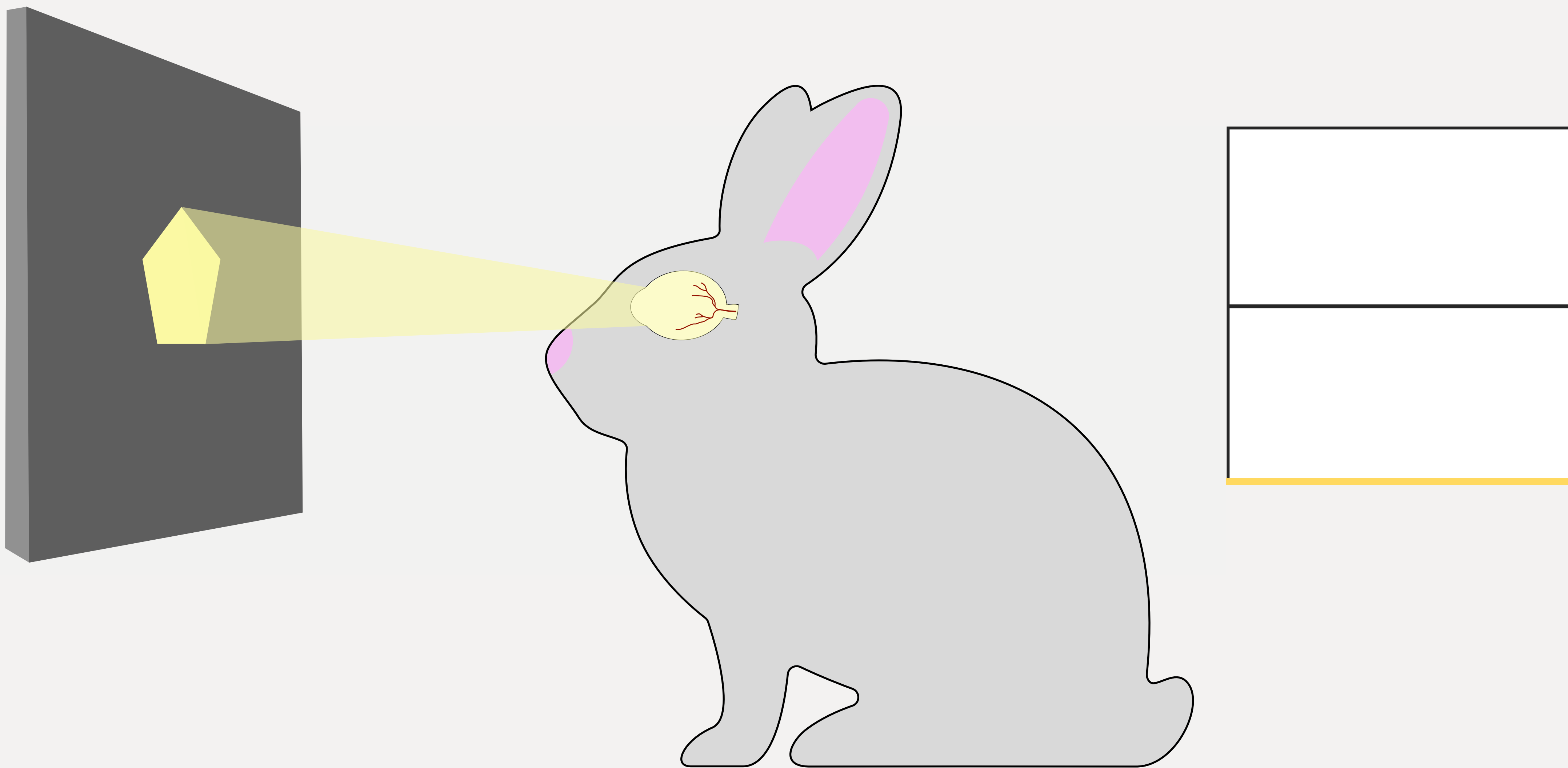


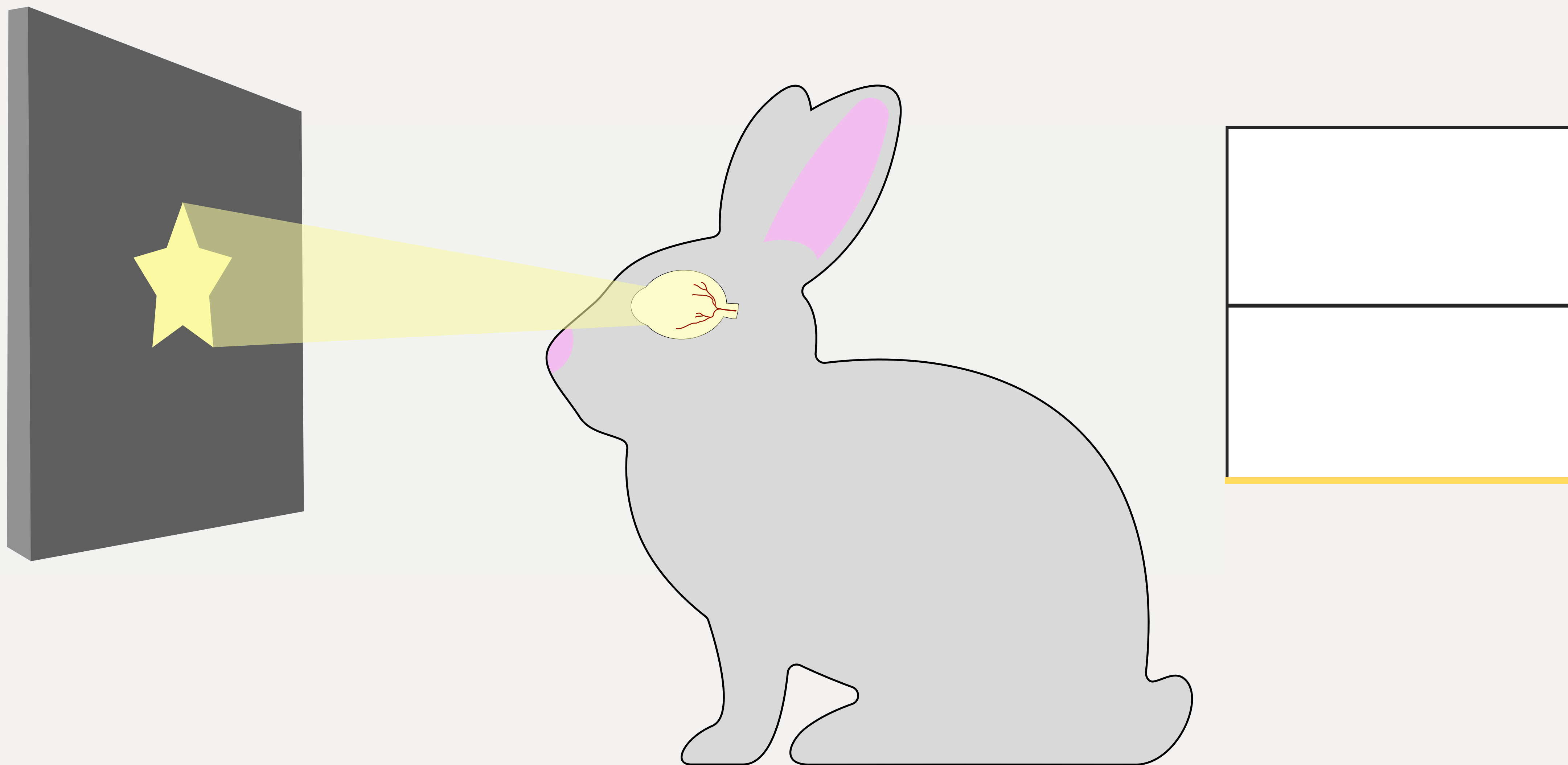


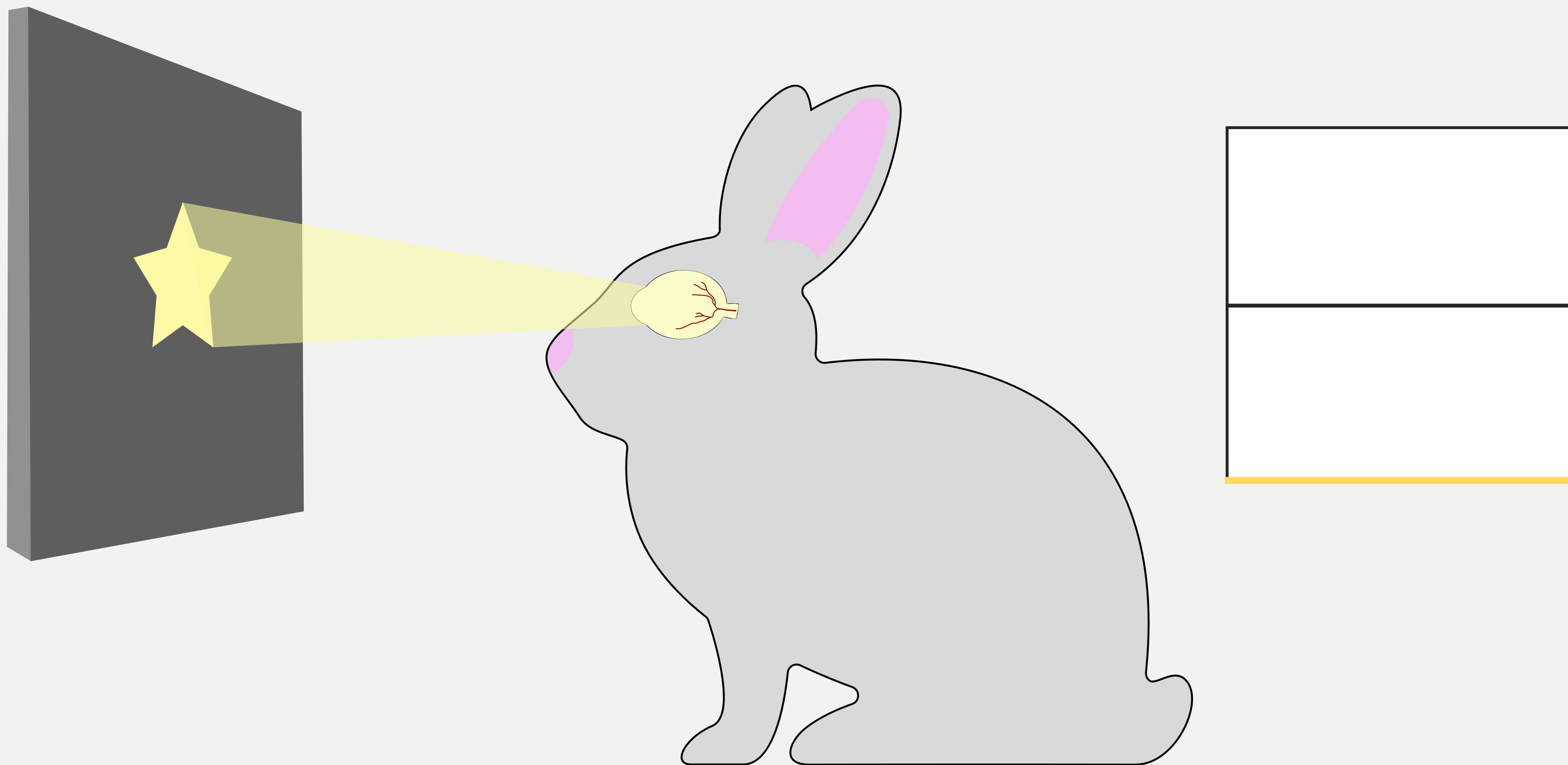




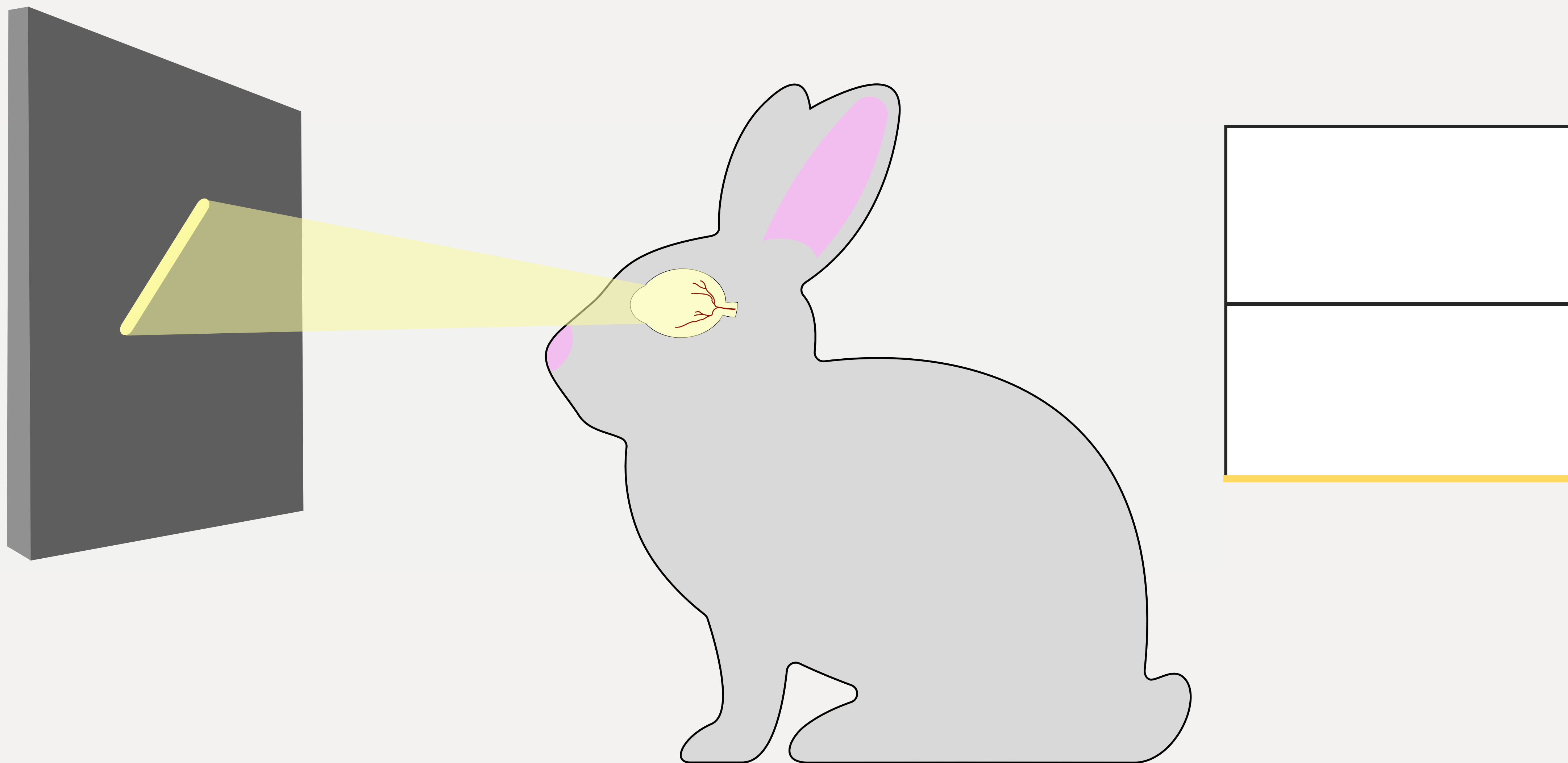










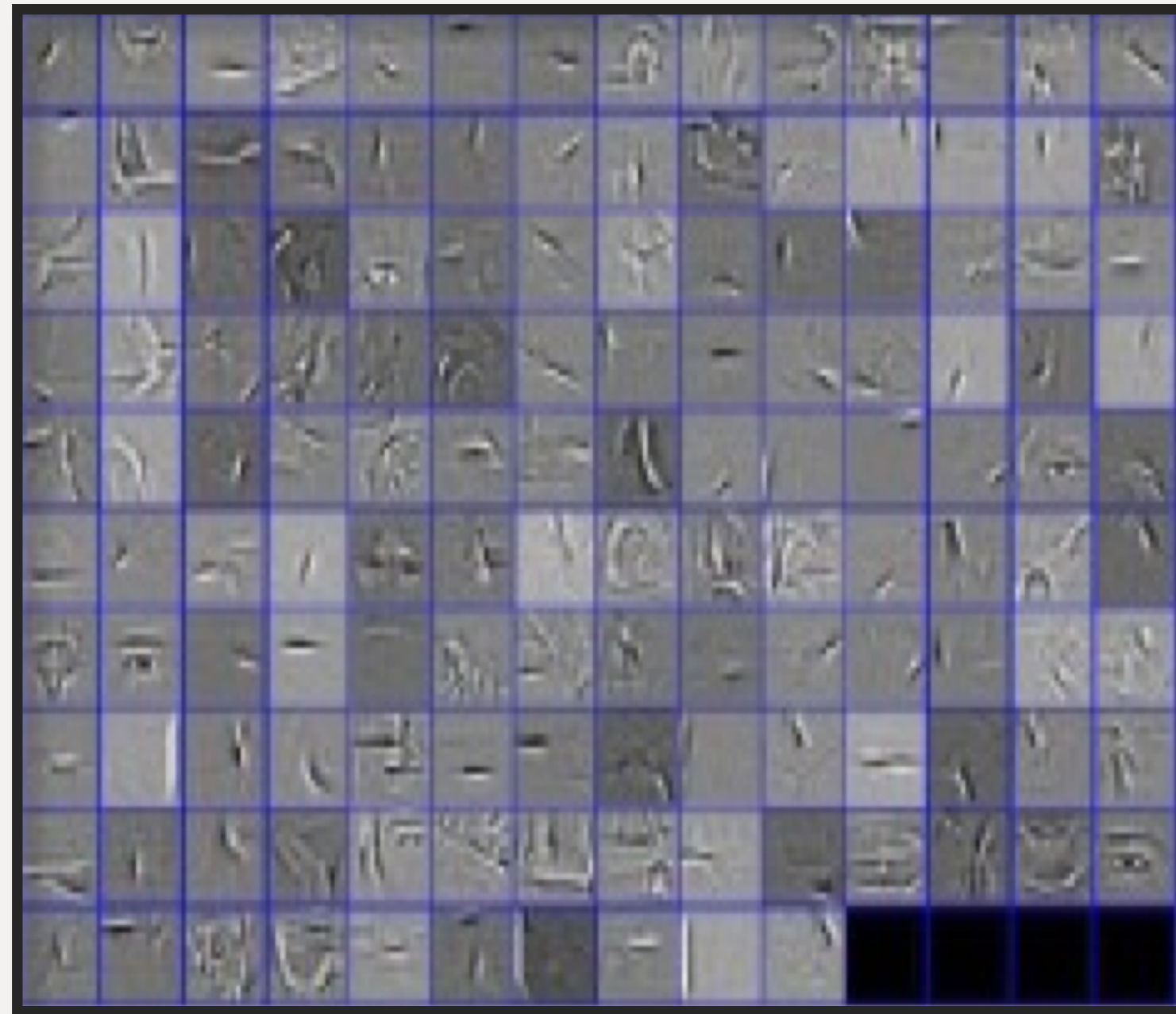


layer 1 filters

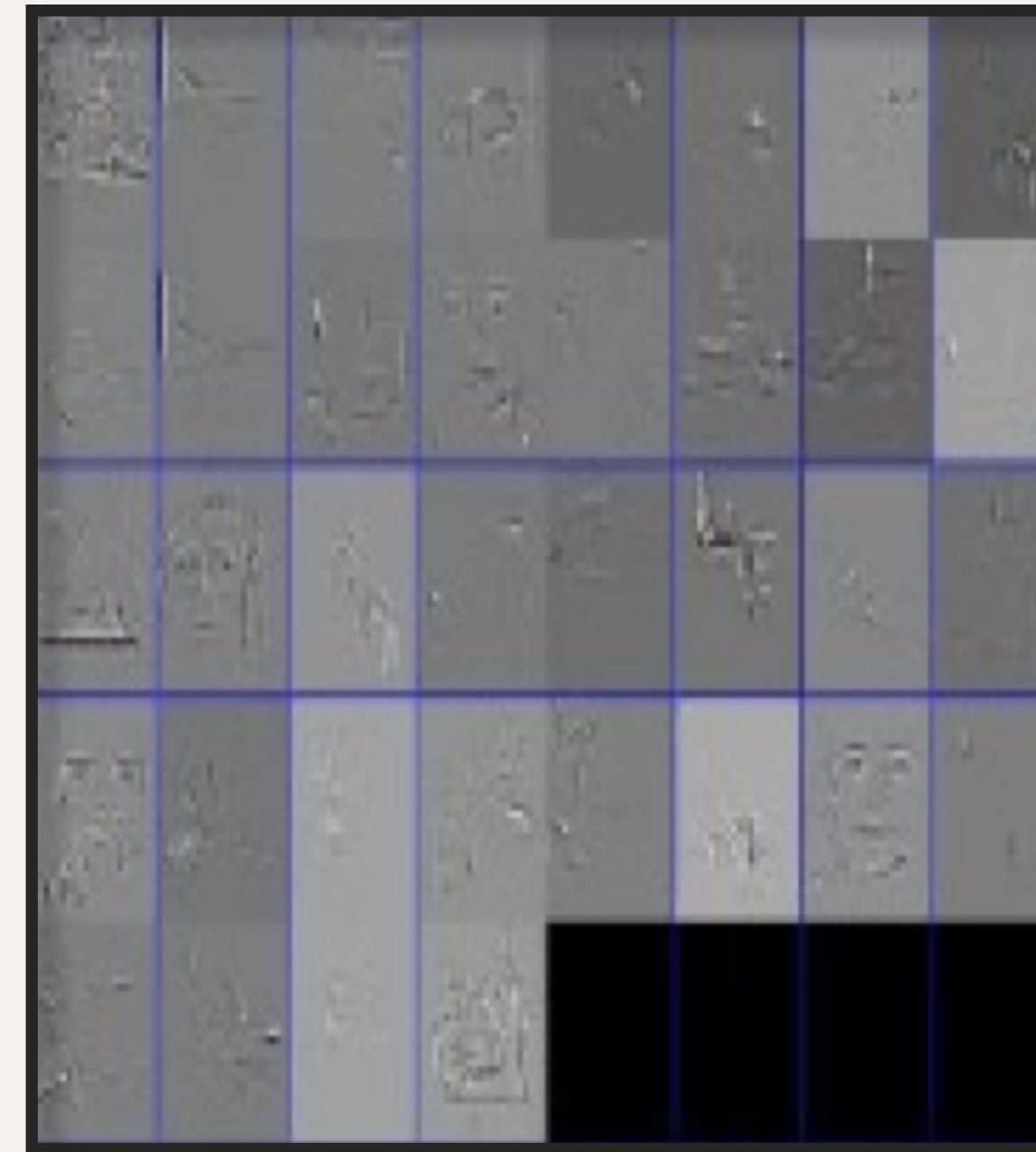
Gabor functions



layer 2 filters

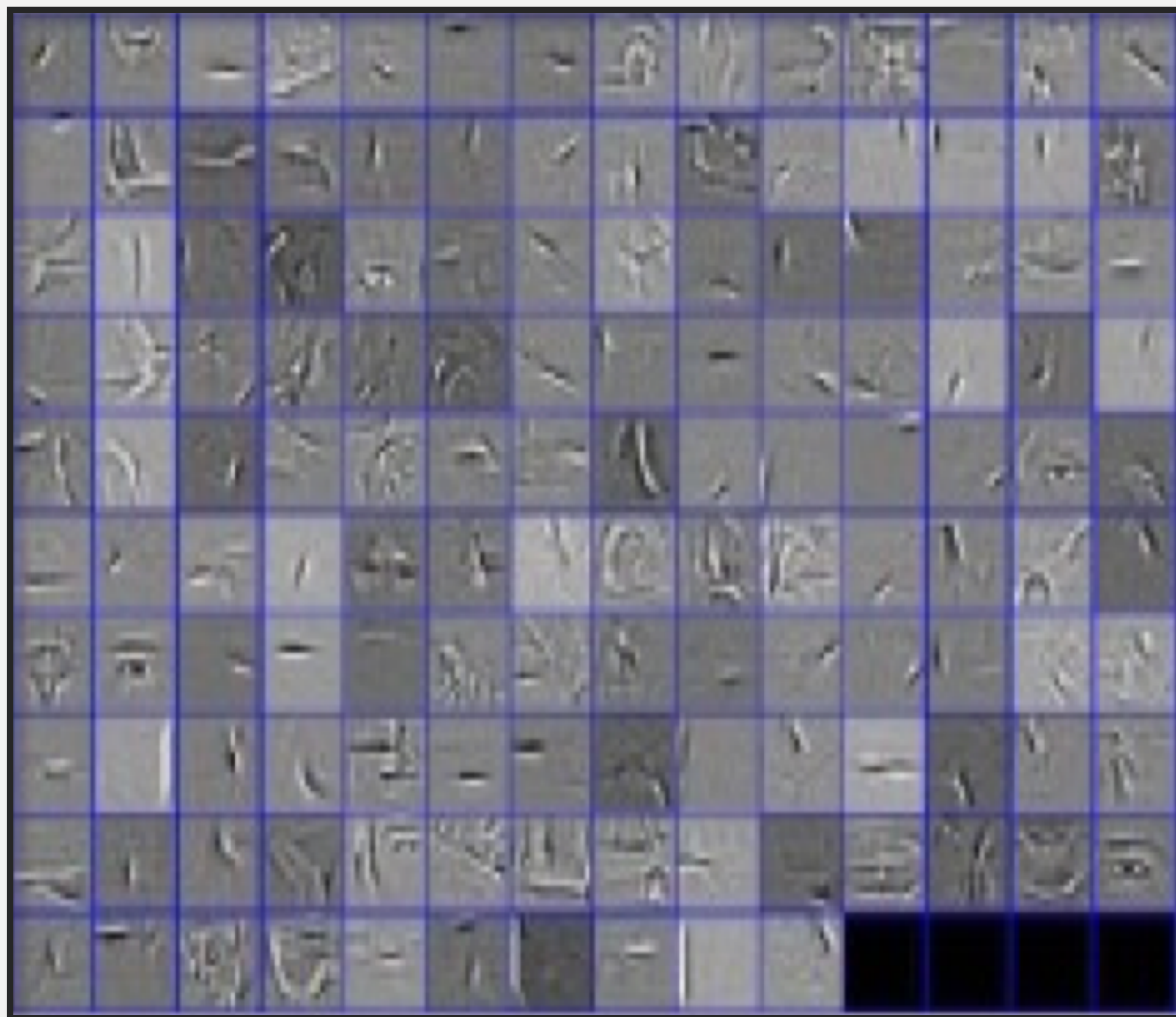


layer 3 filters



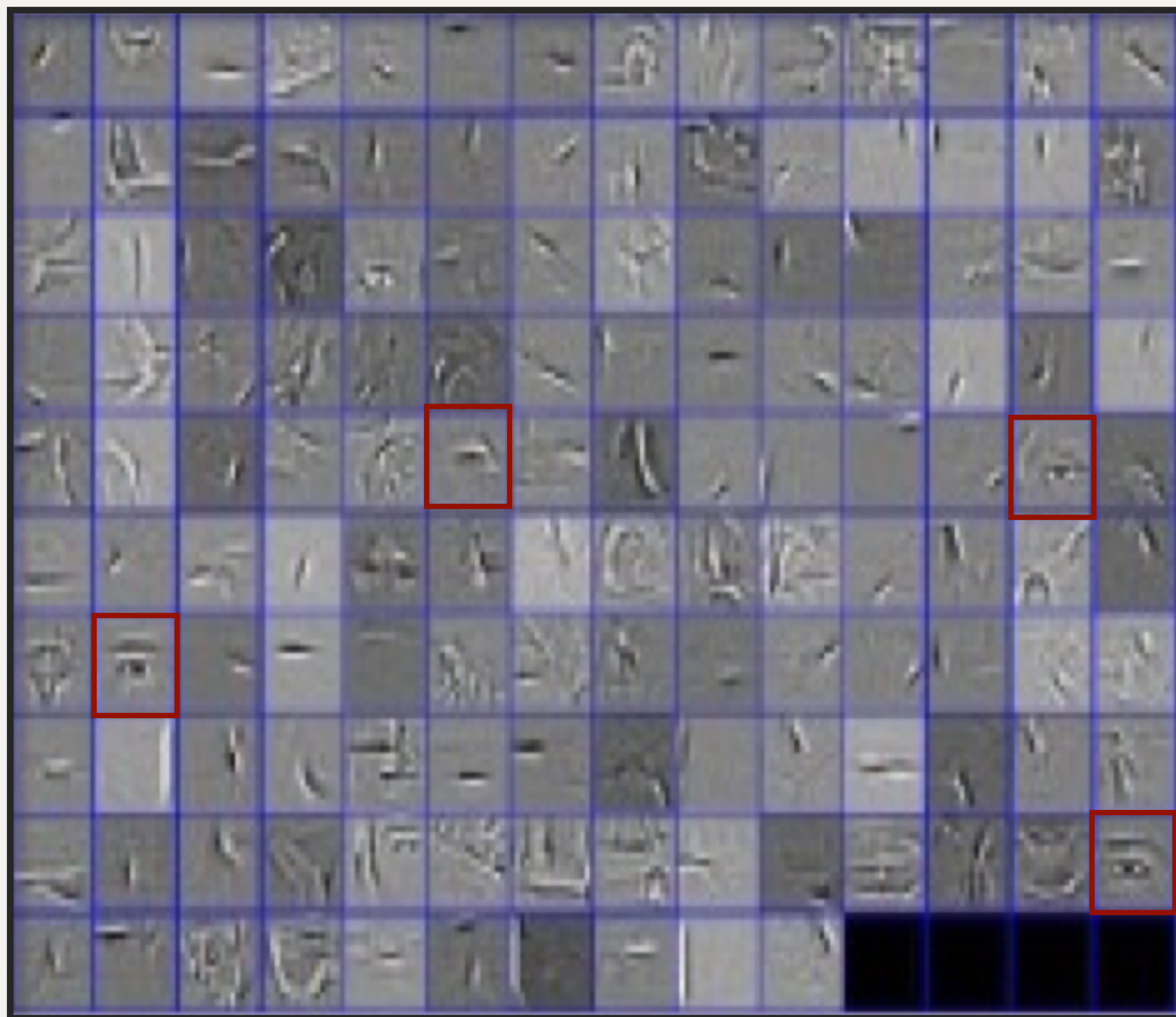


layer 2 filters





layer 2 filters

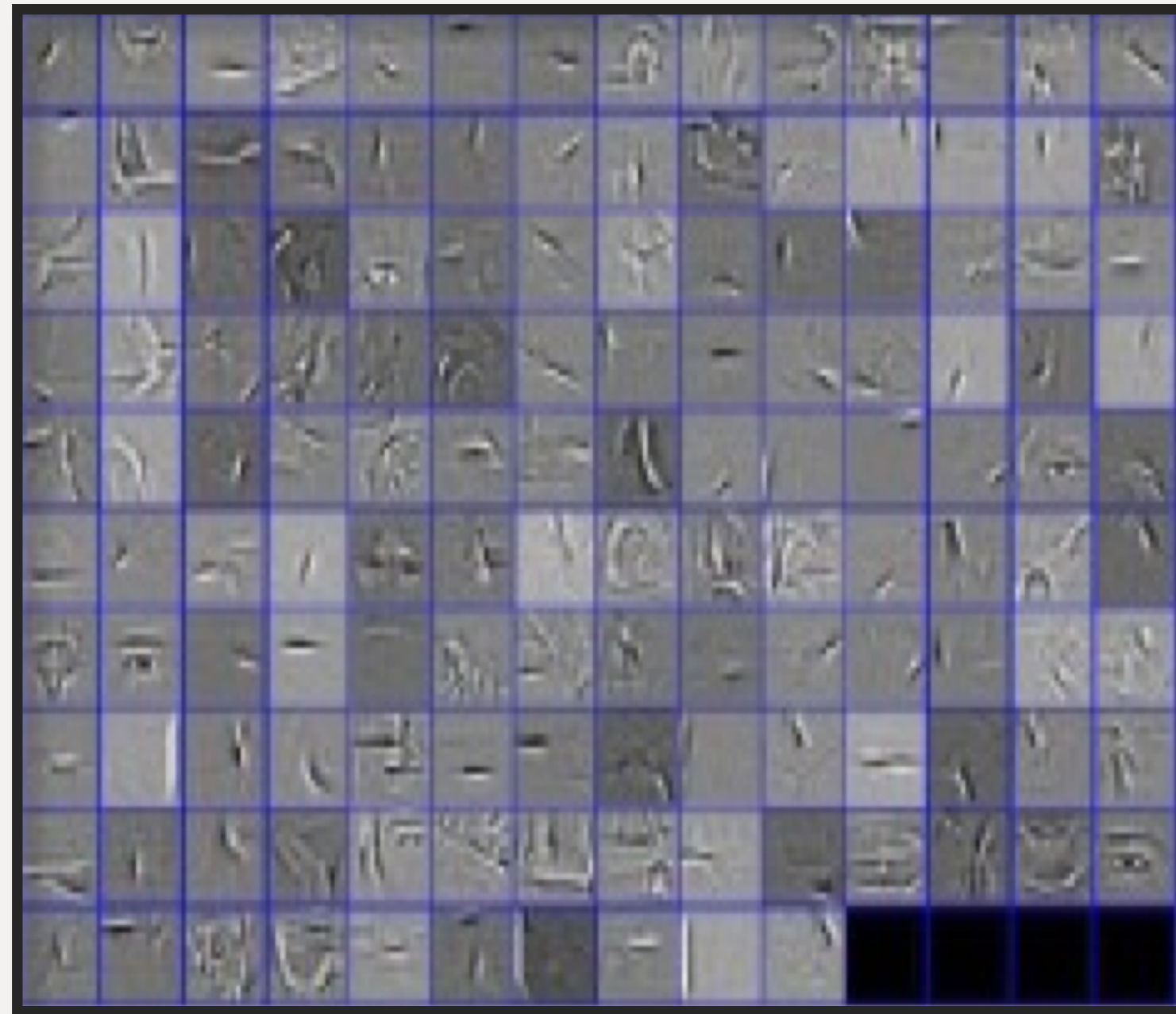


layer 1 filters

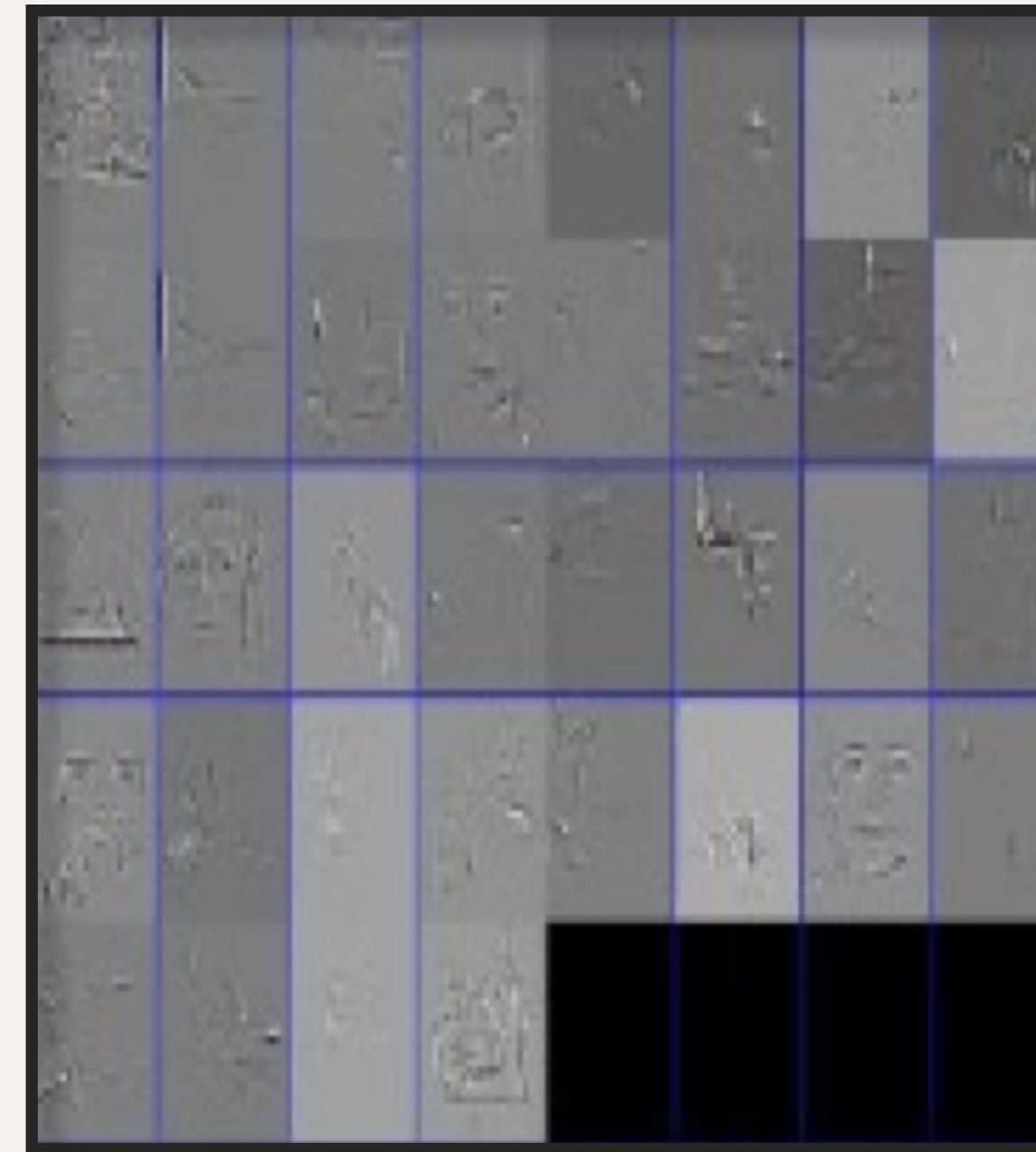
Gabor functions



layer 2 filters

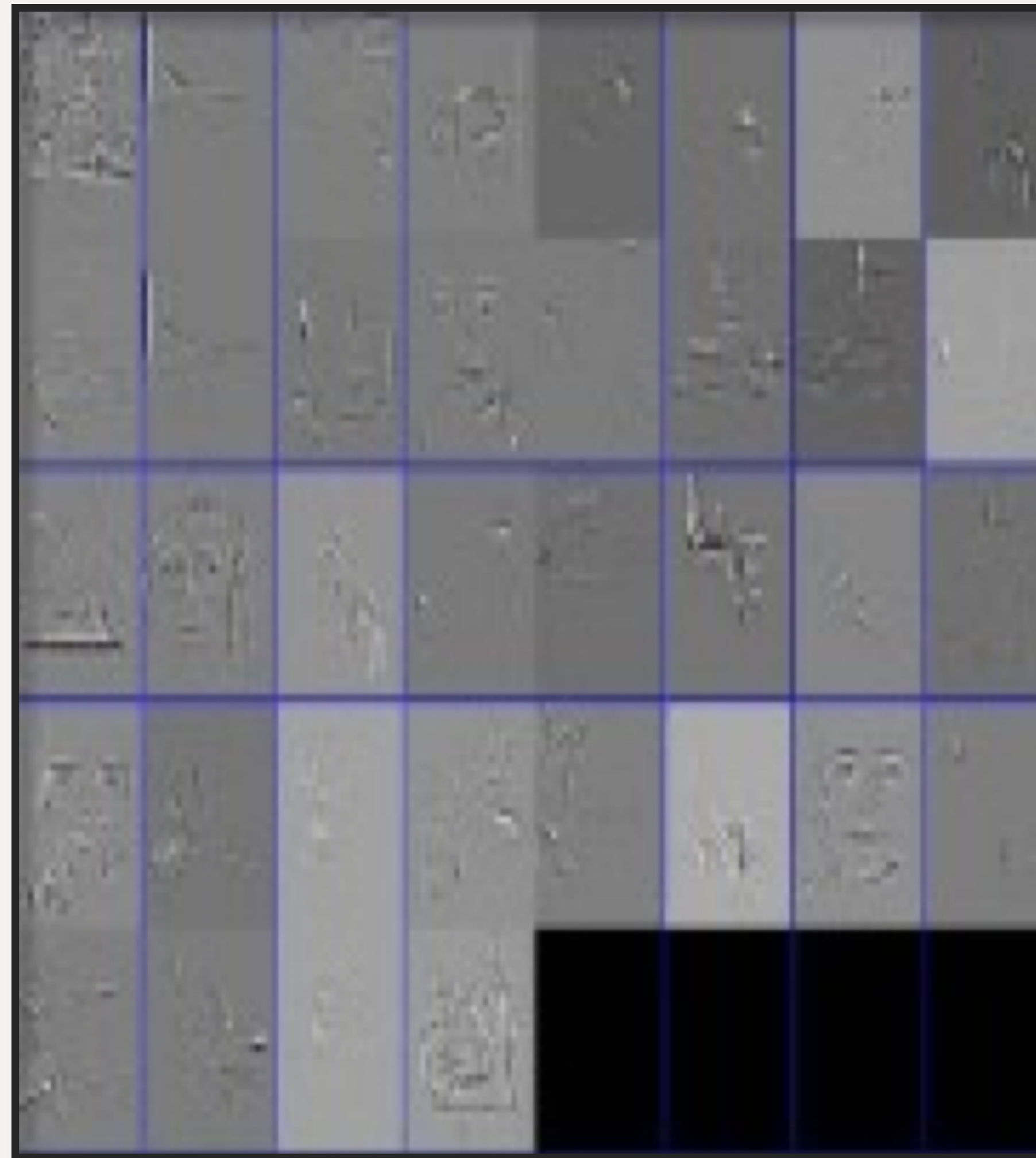


layer 3 filters





layer 3 filters





layer 3 filters

