

Black And White Camera

DESCRIPTION

Using this sketch try to develop the following projects

Pattern2D Live Video Text Binary and Pattern 2D Live Video Text Binary 2
Combine previous projects and apply color effects to every object that holds the correct color.

CODE

```
import processing.video.*;

int video_width = 320;
int video_height = 240;
int num_pixels = (video_width * video_height);
int previous_frame[];

Capture video;

void setup()
{
    //set up size of window and video
    size(320, 240);
    frameRate(60);
    loadPixels();
    previous_frame = new int [num_pixels];

    video = new Capture(this, video_width, video_height, 30);
    video.start(); // Start capturing the images from the camera
}

void captureEvent(Capture video) { video.read(); }

void draw()
{
    background(0);

    for (int x = 0; x < video.width; x++) {
        for (int y = 0; y < video.height; y++) {
            //calculate the 1D location from a 2D grid
            int loc = x + y*video.width;

            int threshold = 100; // check brightness
            //calculate a threshold from 0-255 based on mouseX
            // int threshold = int(((float) mouseX / width) * 255);
            color c;
            //do a threshold test based on brightness
            //the resulting pixel is only white or black
            if (brightness(video.pixels[loc]) > threshold) {
                c = color(255, 255, 255);
            }
            else {
                c = color(0, 0, 0);
            }
            pixels[loc] = c;
        }
    }
    updatePixels();
}
```