

Pixelate Live Video with Scaled Rects

DESCRIPTION This projects uses a patterns of black rects to represent the captured image. It transforms the size of the rects according to the brightness of the pixels.

CODE

```
PImage bg;

import processing.video.*;
Capture video;

int cellSize = 15;
int cols, rows;

void setup()
{
  size(640, 480);
  cols = width / cellSize;
  rows = height / cellSize;
  colorMode(RGB, 255, 255, 255, 100);
  rectMode(CENTER);
  video = new Capture(this, width, height, 15);
  video.start();
  frameRate(30);
}

void draw()
{
  if (video.available()) {
    video.read();
    video.loadPixels();
    background(255);

    for (int i = 0; i < cols; i++) {
      for (int j = 0; j < rows; j++) {
        int x = i * cellSize;
        int y = j * cellSize;
        int loc = (video.width - x - 1) + y*video.width;
        color c = video.pixels[loc];
        float sz = (brightness(c) / 255.0) * cellSize;
        fill(0);
        noStroke();
        rect(x + cellSize/2, y + cellSize/2, sz, sz);
      }
    }
  }
}
```