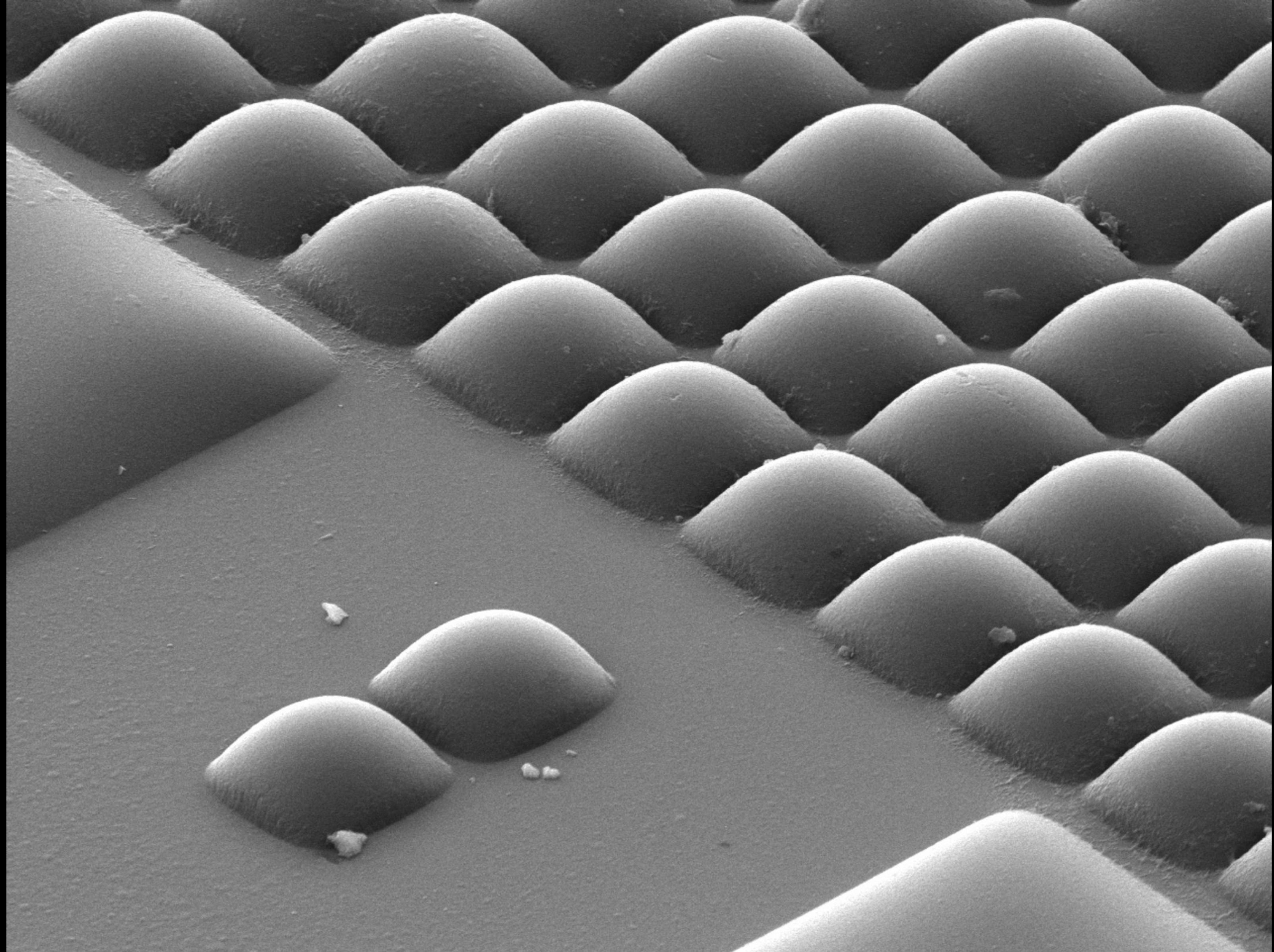


# What is a digital photo, really?

Fabian Tamp  
[//capnfabs.net/photo](http://capnfabs.net/photo)

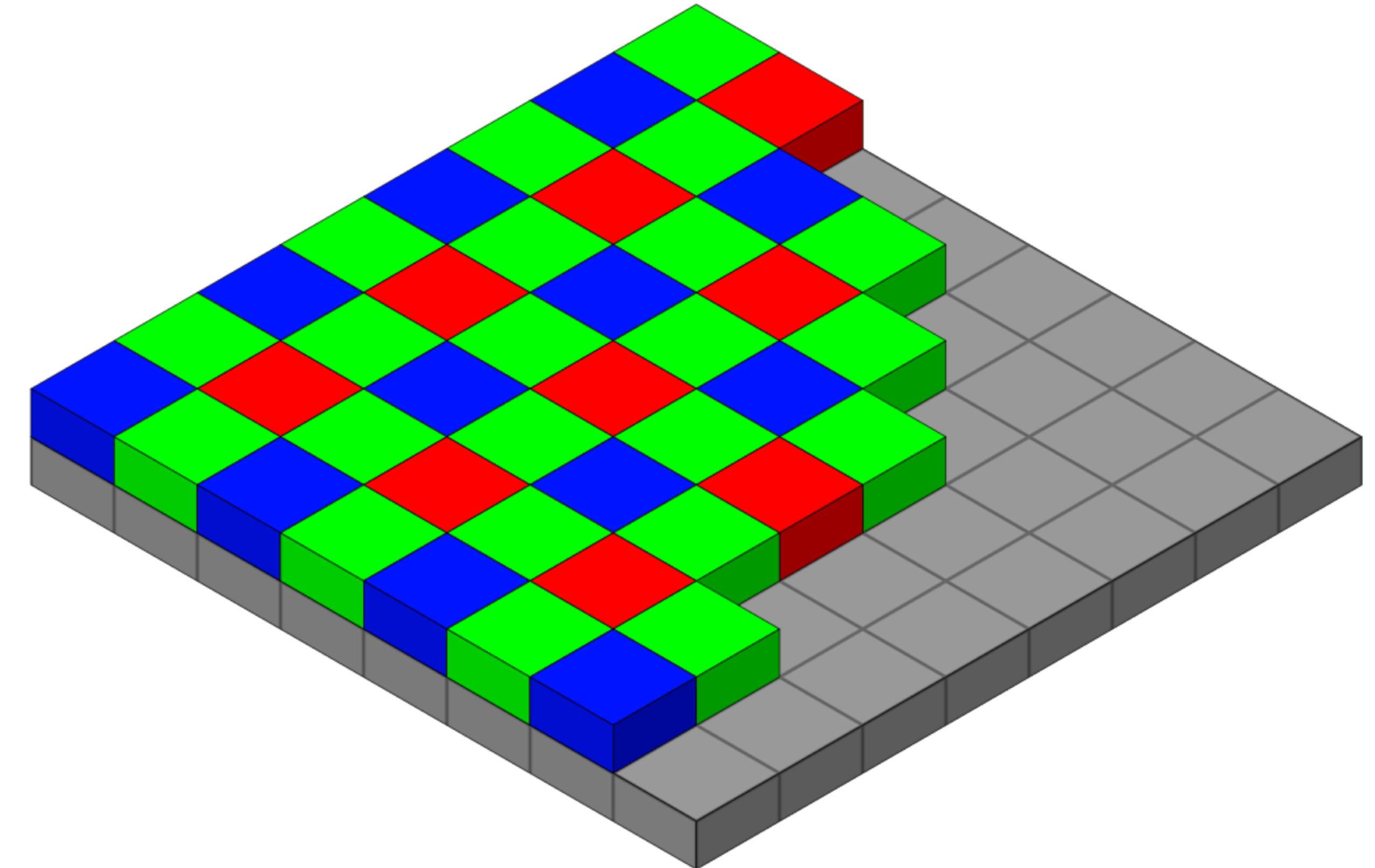






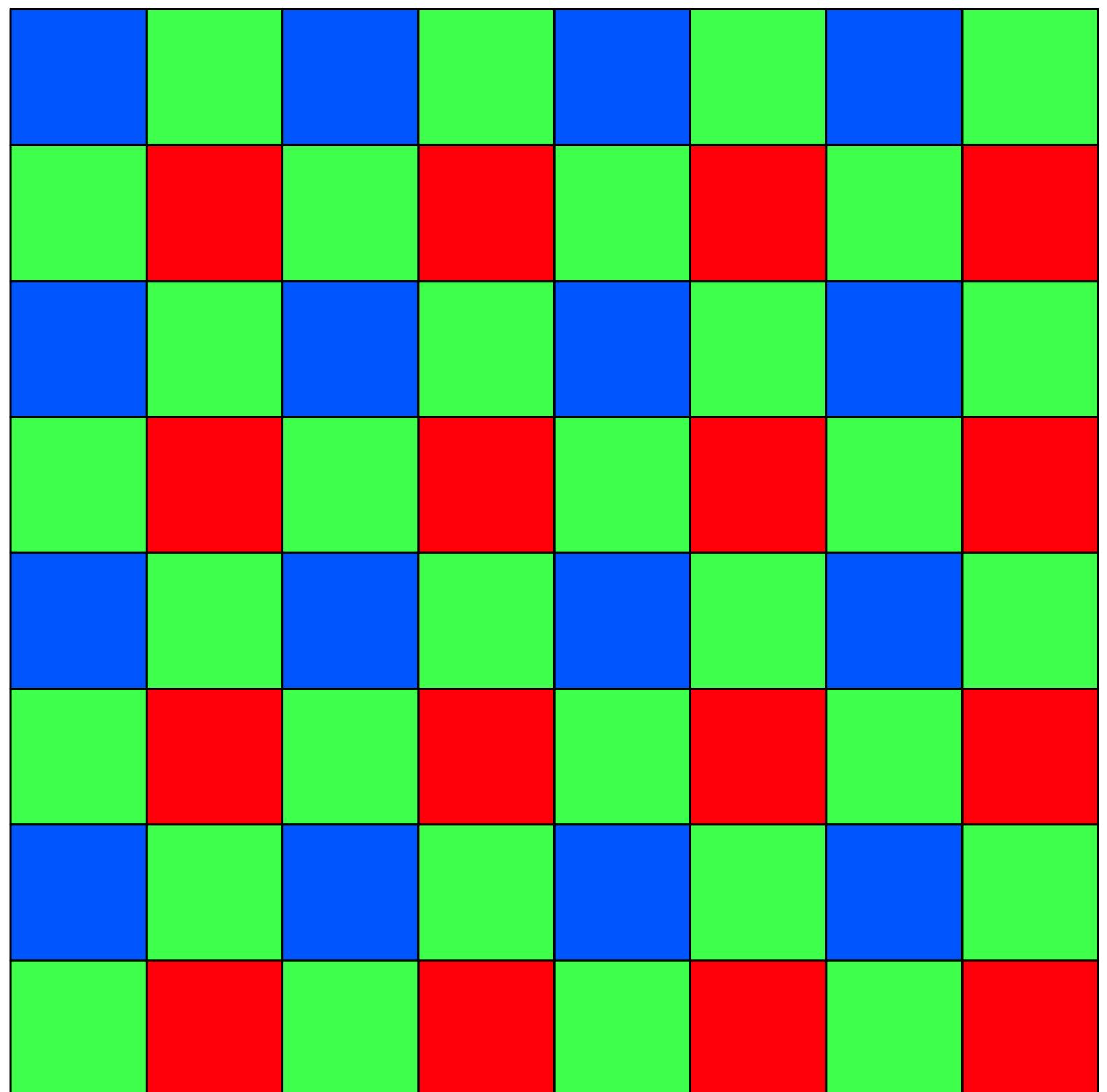
Acc.V    Spot    Magn    Det    WD    | 5 μm  
10.00 kV    3.0    3500x    SE    6.4    Nikon D600 P1D CW TB

# Color Filter Mosaic

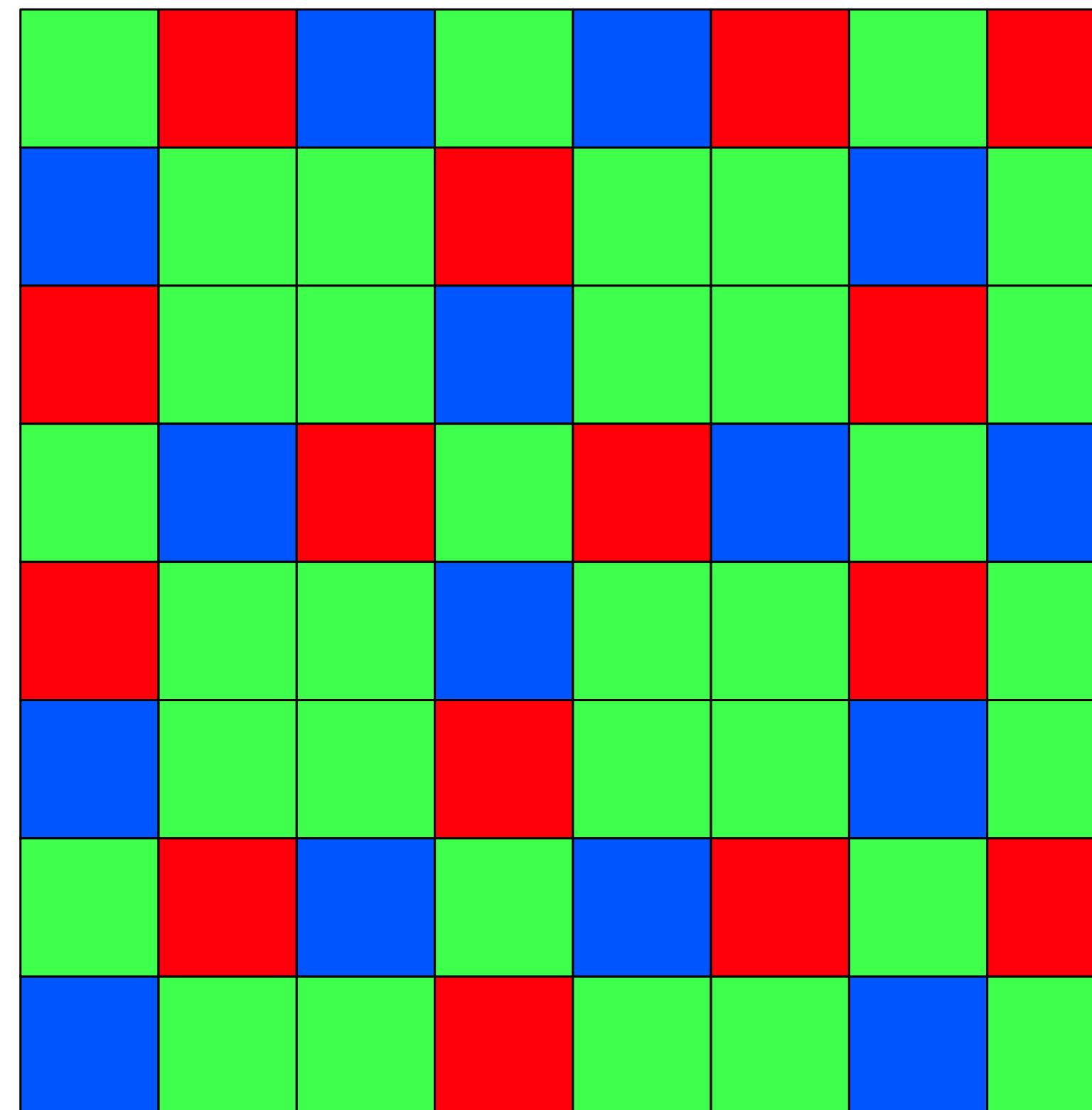


[https://commons.wikimedia.org/wiki/File:Bayer\\_pattern\\_on\\_sensor.svg](https://commons.wikimedia.org/wiki/File:Bayer_pattern_on_sensor.svg)

CC BY-SA 3.0



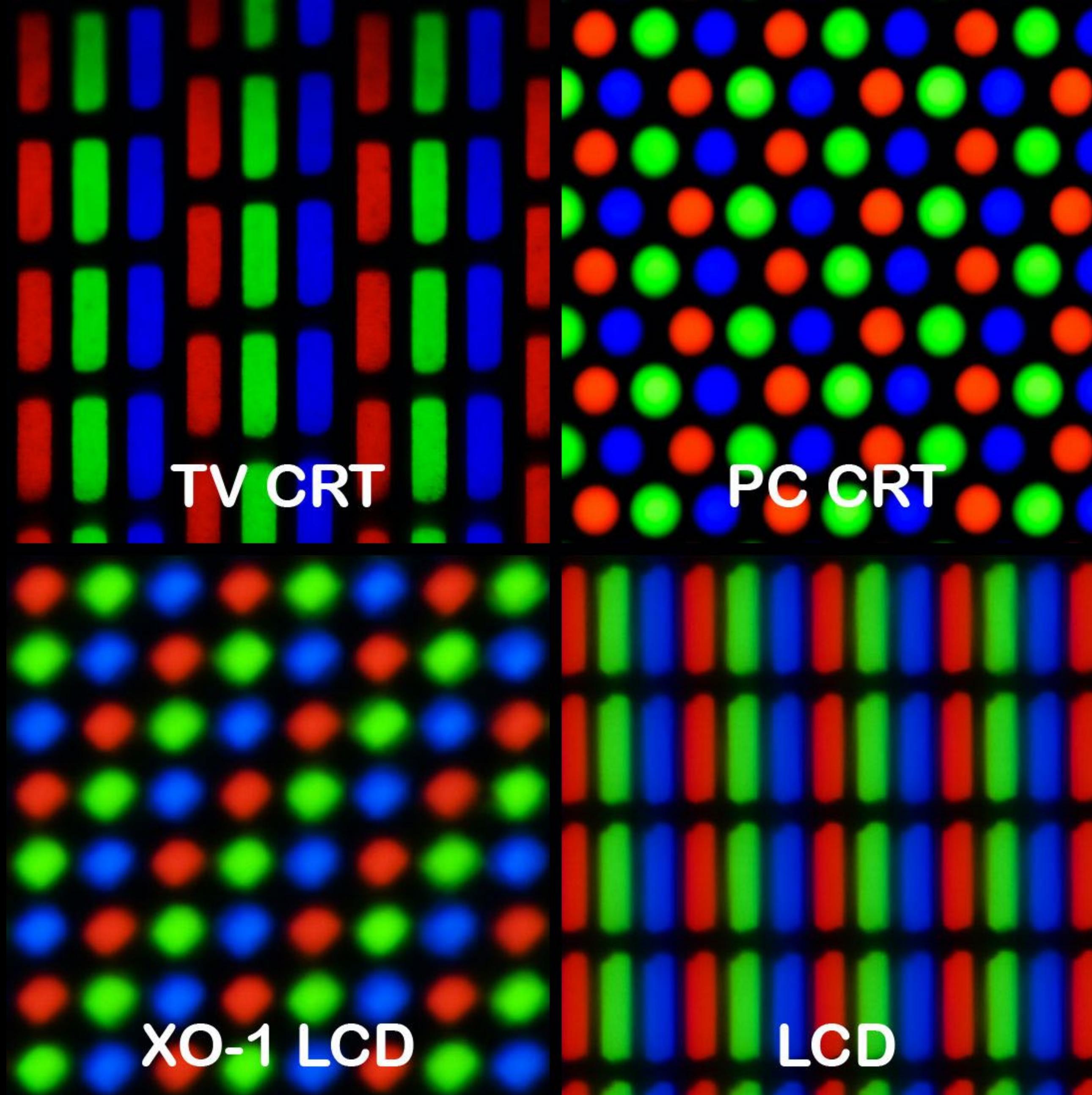
**(Bayer Pattern)**



**(Fuji X-Trans Pattern)**

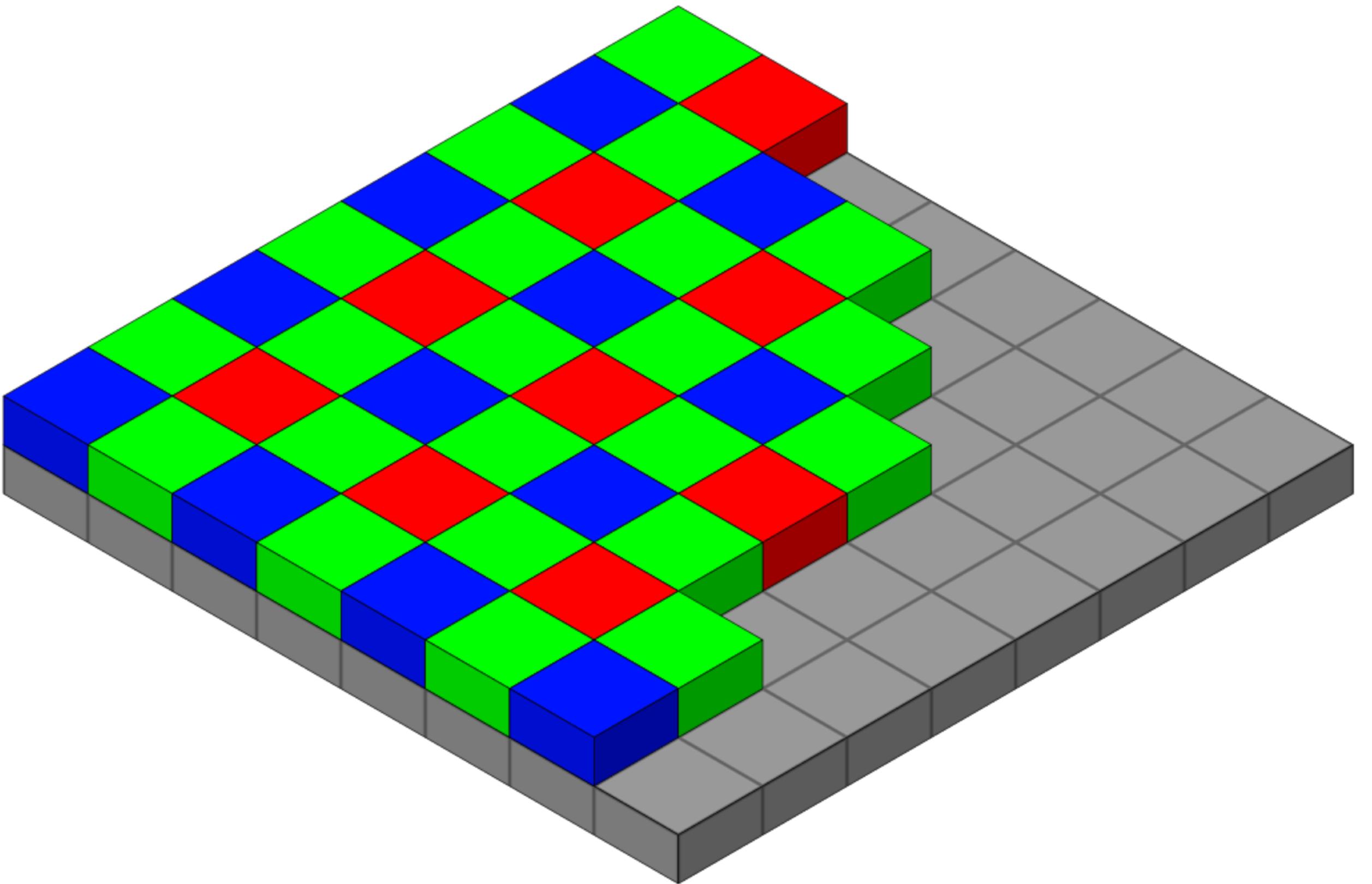
**Aren't Pixels  
RGB?**

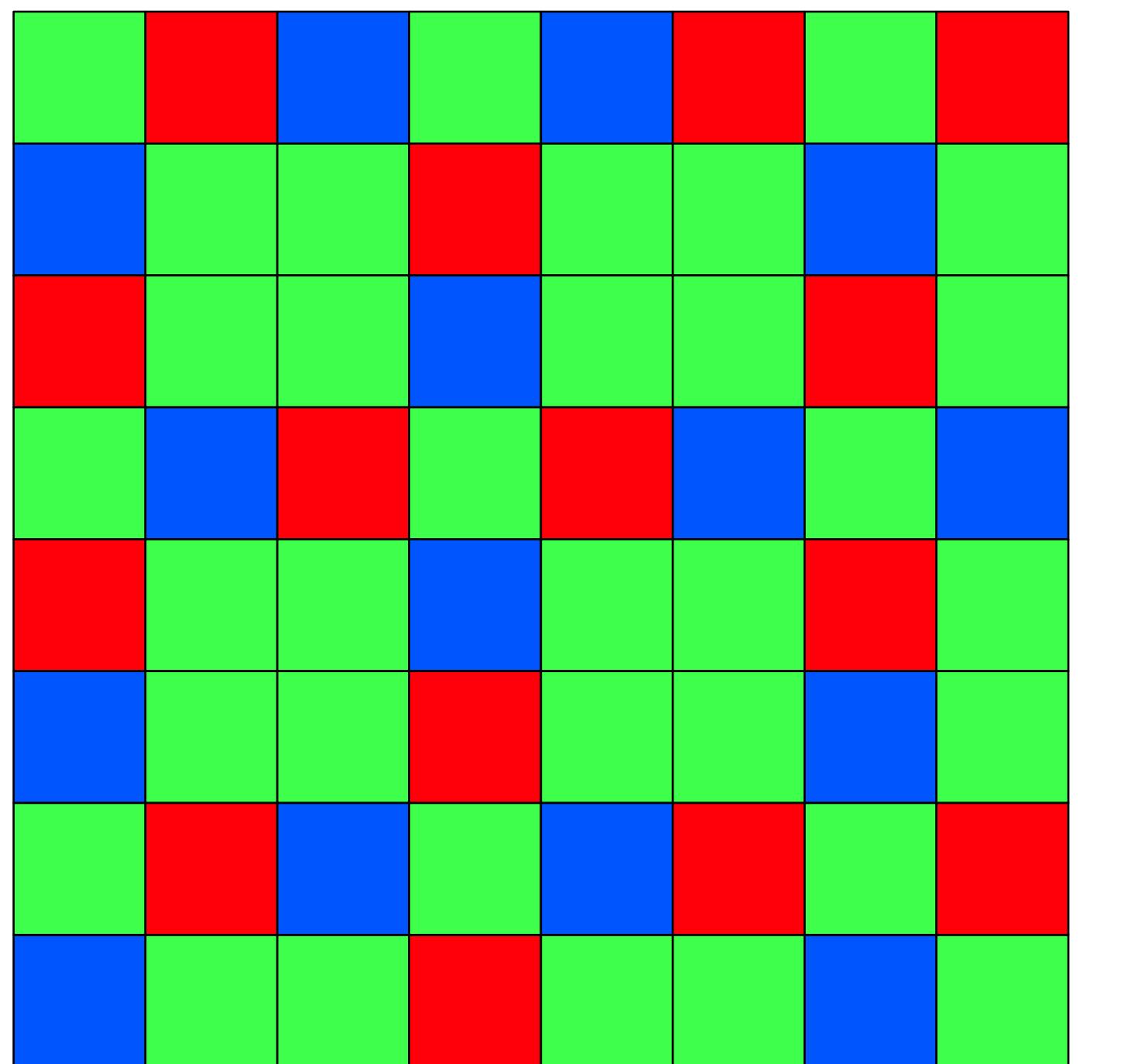
**Yes? Maybe? How do you define a pixel?**



[https://commons.wikimedia.org/wiki/File:Pixel\\_geometry\\_01\\_Pengo.jpg](https://commons.wikimedia.org/wiki/File:Pixel_geometry_01_Pengo.jpg)  
CC BY-SA 3.0

# De•mo•sa•ic•ing





**X-Trans Pattern**























# What is a digital photo, really?

Fabian Tamp

[//capnfabs.net/photo](http://capnfabs.net/photo)

# All Image Sources

- Slide 2, Portra Film: [Markus Spiske](#) on [Unsplash](#)
- Slide 4, [CMOS Sensor](#): iFixit, [CC-BY-NC-SA 3.0](#)
- Slide 5 + 9, [Bayer Pattern On Sensor](#): Cburnett / Wikipedia, [CC-BY-SA 3.0](#)
- Slide 8, [Pixel Geometry](#): Peter Halasz, [CC-BY-SA 3.0](#)
- Slide 21, Lots of Films: [Andrey Konstantinov](#) on [Unsplash](#)
- Everything else, own work: [CC-BY-SA 3.0](#)