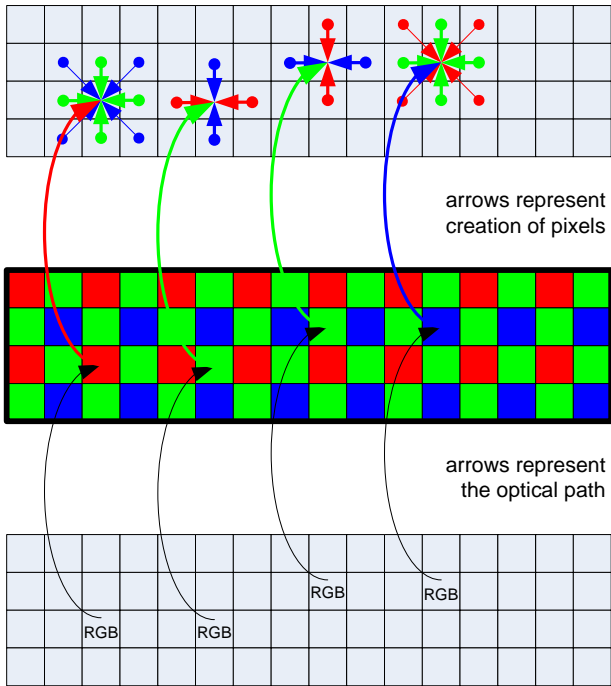


# COLOR Matrix Sensors

## Bayer Matrix (interpolated) versus 3 Layer Matrix (optical)

interpolation occurs

image pixels are not 100% representative of object  
 image has substantial loss of sharpness  
 image has loss of object resolution, but pixel count is same  
 appearance of Moiré effects on image



RGB  
IMAGE FILE

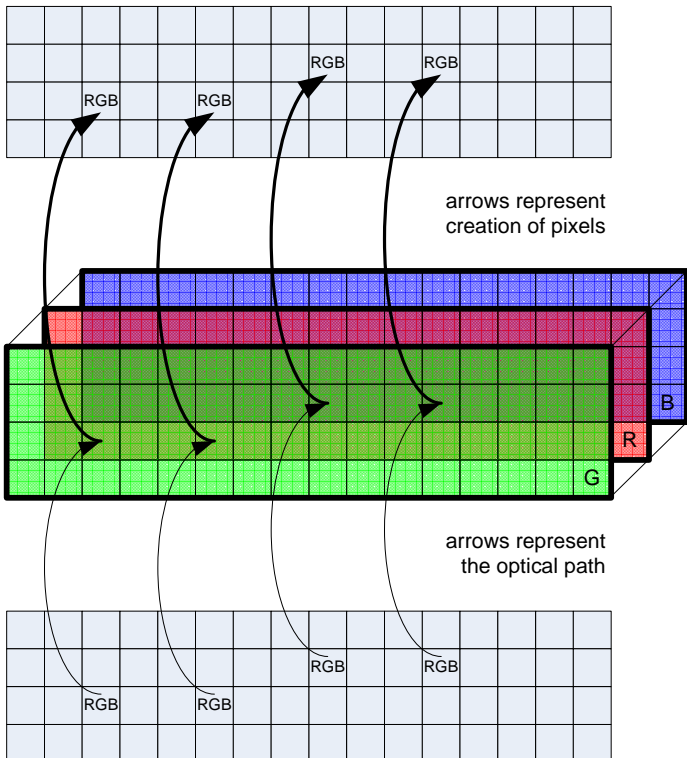
RGB components of a pixel are **generated by interpolation from adjacent neighbour pixels**

SENSOR  
with BAYER  
matrix

Every pixel senses **only one color**

OBJECT

every pixel has RGB components



RGB  
IMAGE FILE

RGB components of a pixel are **represented optically**

SENSOR  
with 3 layer  
matrix

Every pixel senses **3 colors**

OBJECT

every pixel has RGB components