

Prelab 10:

1. Most people perceive modulated light to be stable at 50 Hz or higher

2. Input clock = 100,000,000 Hz

Stable FPS = 50 Hz \times 4 bits = 200 Hz

$$\frac{100 \text{ MHz}}{200 \text{ Hz}} = 400,000 \text{ Hz}$$

$$2^{(\text{number of bits})} \leq 400,000 \text{ Hz}$$

$$\underline{2^{18} = 262,144}$$

$$\underline{2^{19} = 524,288}$$

Counter width : 18 bits