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#### Project 4

# 1.0 | Compiled and Synthesized (Without timer)

| Logical Elements | Registers | Total Pins | Memory Bits |
|------------------|-----------|------------|-------------|
| 5897             | 4070      | 134        | 167936      |

# 2.0 | Compiled and Synthesized (With timer)

| Logical Elements | Registers | Total Pins | Memory Bits |
|------------------|-----------|------------|-------------|
| 6092             | 4218      | 134        | 167936      |

#### 3.0 | Comparison of Results

More logical elements and registers are being used as more computation will be occurring in this project, however there are the same number of pins and memory bits, as we did not add any IO components, nor did we need to expand the amount of memory bits needed.

### 4.0 | Frames Per Second

Frame rate = (number of frames) / (frame time)

0.004329 = (4)/(17 + 60 + 77 + 77)