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| **4-BIT ALU** |
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| ***DE Lab Project Report*** |
| ***Submitted By*** |
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1. **Problem Identification**

To create a ALU using gates which can perform 4 bit calculation such as addition , subtraction etc.

**2. Features**

**Capabilities:**

 Addition - 4 bit binary addition of two numbers.

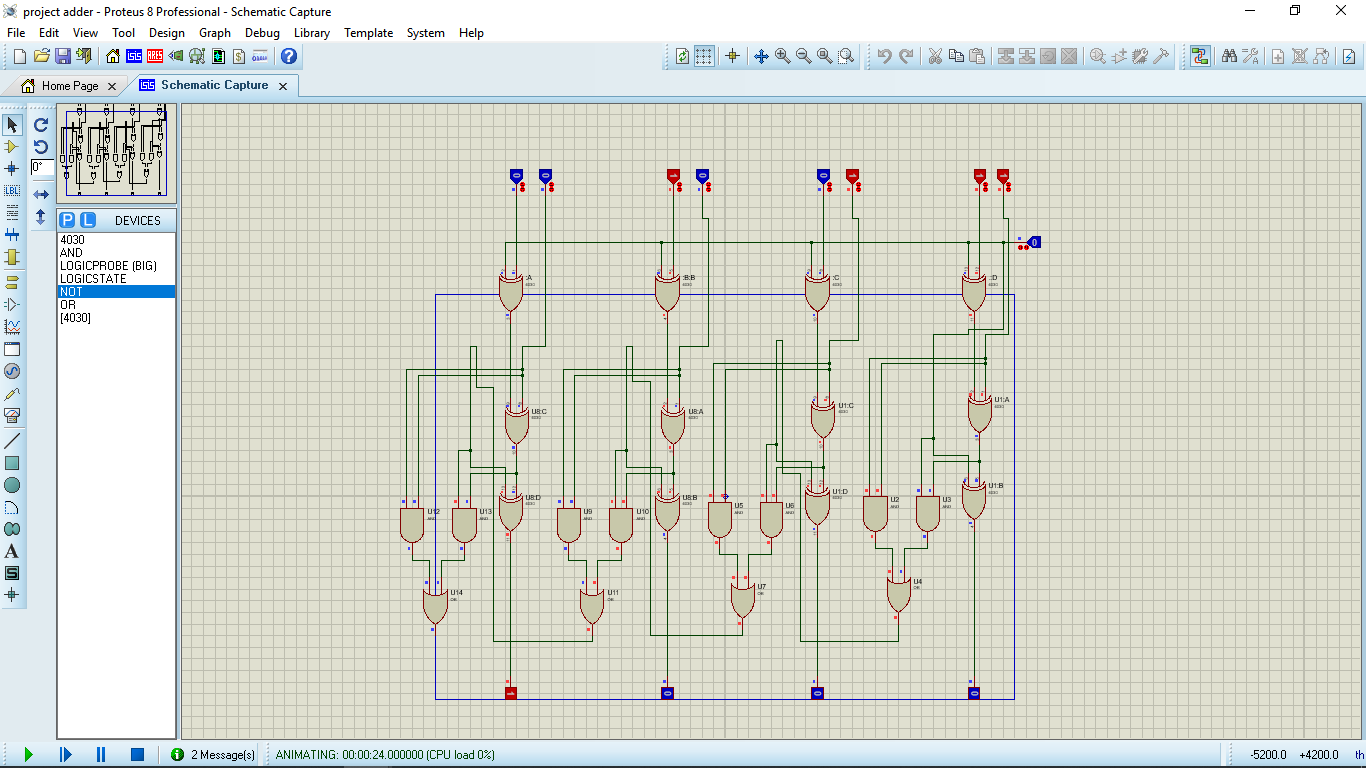
 Subtraction - 4 bit subtraction of two numbers in binary form.

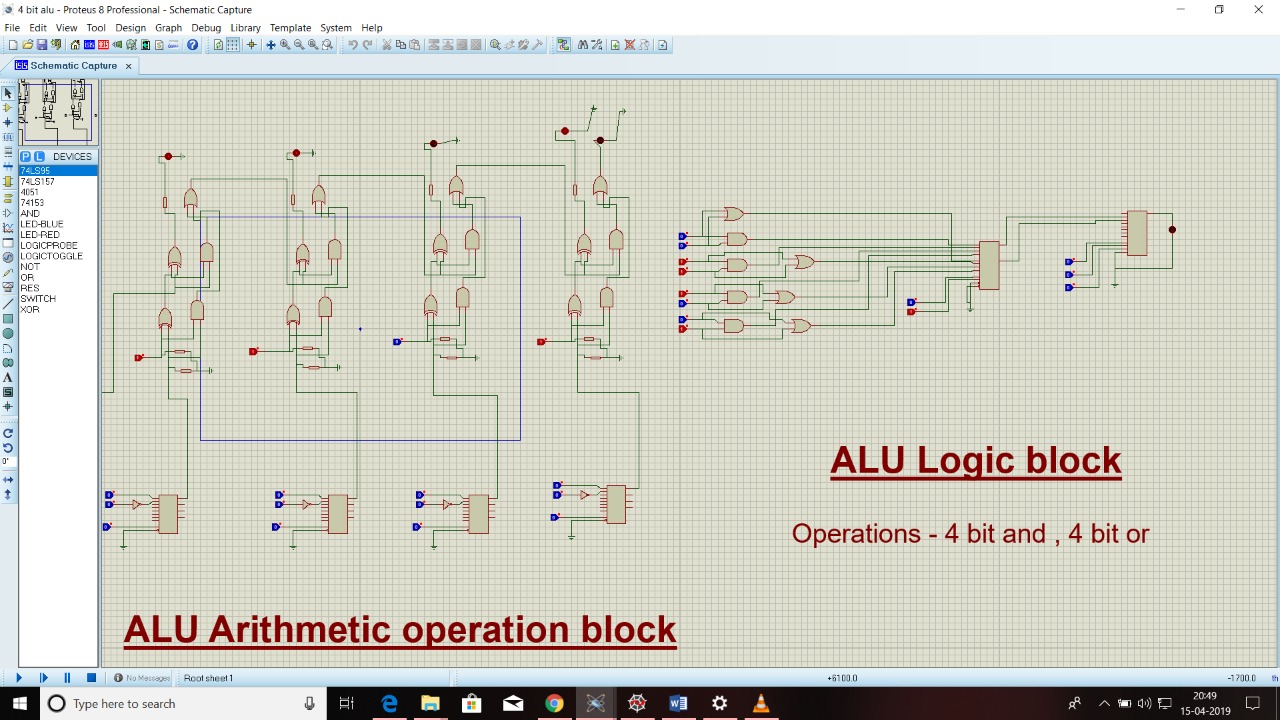
**3. Design Flow**

# Block Diagram

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Input  signal |  | ALU |  | Seven  Segment  Decoder |  | Seven  Segment  Display |

**4.Circuit Diagram :**

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# Materials:

|  |  |
| --- | --- |
| Sr. No. | Component |
| 1 | 7408(And gate) |
| 2 | 7432(Or gate) |
| 3 | 7486(Xor gate) |
| 4 | 7404(Not gate) |
| 5 | Logic probe |
| 6 | Logic identifier |
|  |  |

**5. Outcome**

**6. Cost Analysis**

No cost.