

## Possible Outline for Labs 8, 9, 10: **DC – DC Power Supply**

Title page with abstract

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### 1.0 Introduction (***Do not subdivide this section***)

1.1 Purpose and scope of both report and lab

Block diagram

1.2 Definitions

1.3 Constraints

1.4 Principle of operation (boost converter/astable multivibrator)

1.5 Brief description of construction

1.6 Preview results

1.7 Forecast major sections of document

### 2.0 Circuit development and analysis (describe/present schematic, outline design process, forecast sections)

#### 2.1 Boost converter

2.1.1 Calculating switching time—current flow into the inductor

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2.1.4 Calculating output current

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Filter stage here?

#### 2.3 Two-stage DC-DC converter

### 3.0 Simulated performance

3.1 Boost converter

3.2 Astable multivibrator

3.3 Two stage DC-DC converter

### 4.0 Experimental implementation

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### 5.0 Discussion

### 6.0 Cost estimate

### 7.0 Conclusion

Appendices