

BBM233: Logic Design Lab  
2024 Fall  
Lab Experiment #1 Report

Mustafa Furkan Ateş, 2220356176

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## 1 Question 1

The Boolean function for Dispense Food can be written in sum of minterms form:

Dispense food when  $T=1$  and  $F=1$  (regardless of  $A$ )

Dispense food when  $T=0$ ,  $A=1$  and  $F=1$

Dispense Food  $(T, A, F) = (T' \cdot A \cdot F) + (T \cdot F)$

A	B	C	$((\neg A \wedge B) \wedge C) \vee (A \wedge C)$
F	F	F	F
F	F	T	F
F	T	F	F
F	T	T	T
T	F	F	F
T	F	T	T
T	T	F	F
T	T	T	T

Figure 1: My truth table

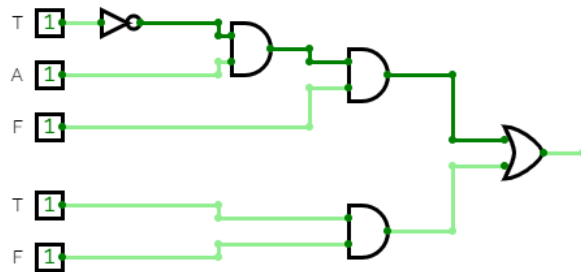


Figure 2: My circuit

## 2 Question 1

Boolean function of Dispense Food is  $(T, A, F) = (T' \cdot A \cdot F) + (T \cdot F)$

## References

- [circuitverse.org/simulator](http://circuitverse.org/simulator)
- [truth-table.com](http://truth-table.com)