

# **DIGITAL SYSTEM**

## **PRACTICUM REPORT 2 : RECOGNITION SIGNAL**



**NIM : L200184172**

**NAME : HAFSHAH FITRI AFIFAH**

**INFORMATION TECHNOLOGY**

**FACULTY OF COMMUNICATION AND INFORMATICS**

**MUHAMMADIYAH UNIVERSITY OF SURAKARTA**

**2019**

NIM : L200184172

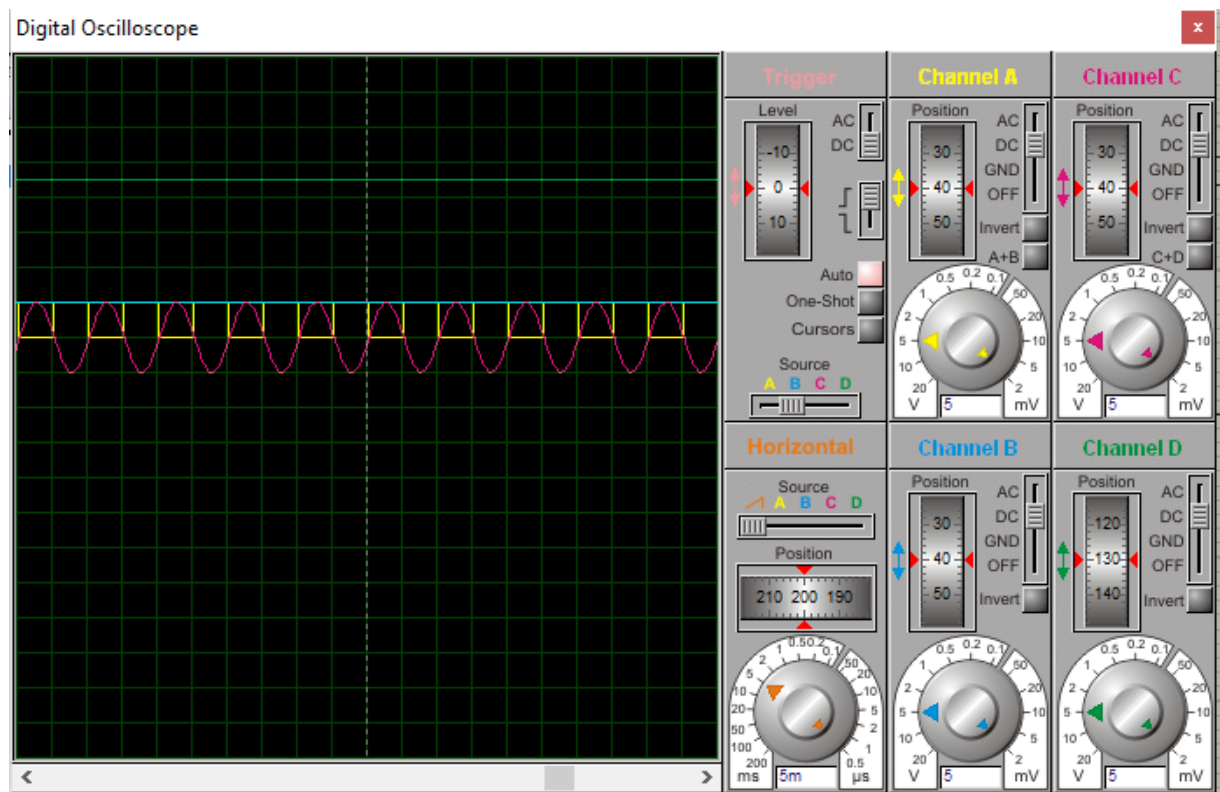
NAME : HAFSHAH FITRI AFIFAH

CLASS : X

ASSISTANT : SALSA SASMITA MUKTI

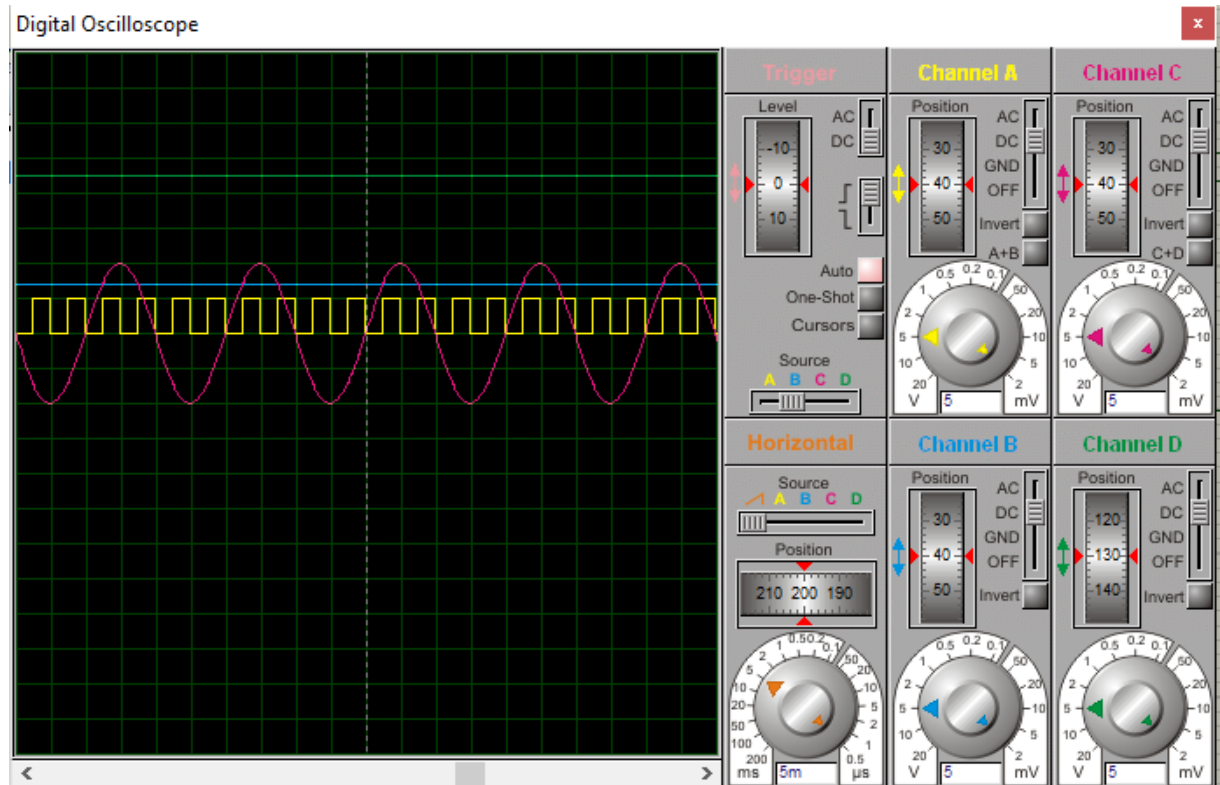
DATE OF PRACTICUM : Friday, March 8<sup>th</sup> 2019

**#TRIAL 1. SIGNAL TYPE EXERCISES**



Channel A, B, C, occupies position 40 with DC voltage. D channel occupies position 130 with DC voltage. Trigger occupies level 0 with DC voltage, and source B. Volt / div is 5V, and time / div is 5m.

channel A is a digital signal, and channel C is an analog signal.



Channel A, B, C occupies position 40 with DC voltage

Channel D occupies position 130 with voltage C

Time / div = 5m

Volt / div = 5V

## 1) What is the difference between analog and digital signals

Analog signals: wave and continue. but in some cases, analog signals can be straight in shape

Digital signal: pulses (boxes)

## 2) What is the signal character of each component?

- Signal from alternator (analog / digital)

because it cannot be determined to turn off (open and close), its amplitude can only be measured (high low wave)

- Signal from battery (analog / digital)

Because the voltage is stable and continues

- Signal from clock source (analog / digital)

Because it can be determined the flame is off

### 3) Conclusion

- Analog signal

Wave / straight and continue, can not be determined the flame is off

- Digital signals

Shaped pulses (boxes) and can be determined the flame is off (open the lid)

→ The signal from Alternator & battery is an analog signal

The signal from Clock source is a digital signal

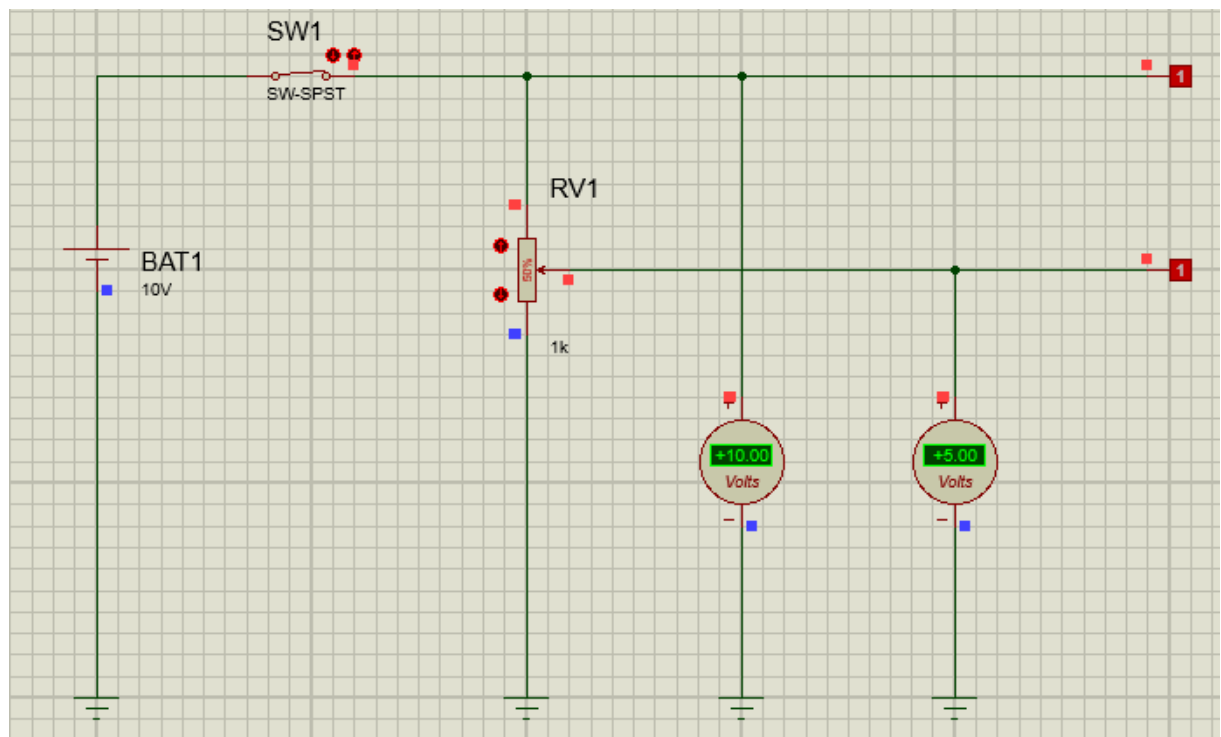
### # TRIAL 2. LATIHAN RANGE SINYAL DIGITAL

1. DC voltage 1: +10 Volt

DC voltmeter 2: +5 Volt

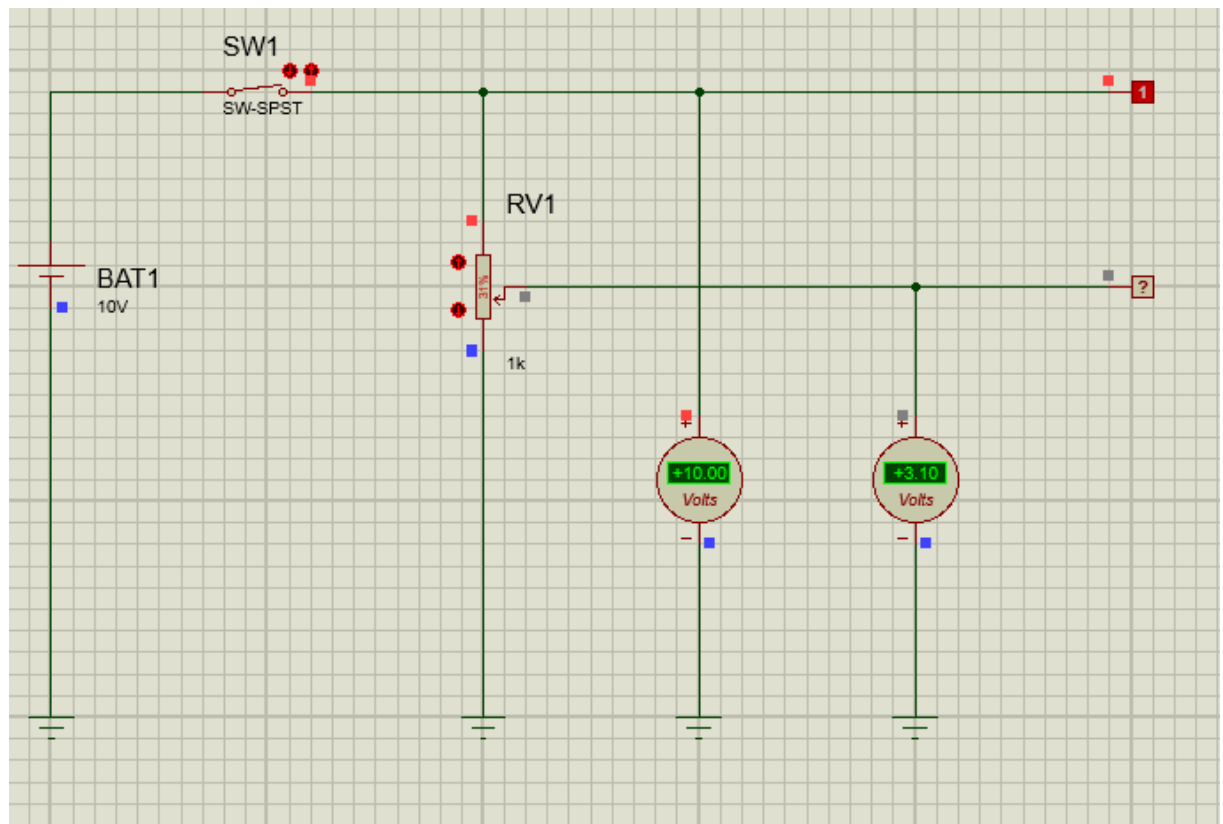
Logicprobe 1 shows logic conditions: 1

Logicprobe 2 shows logic conditions: 1



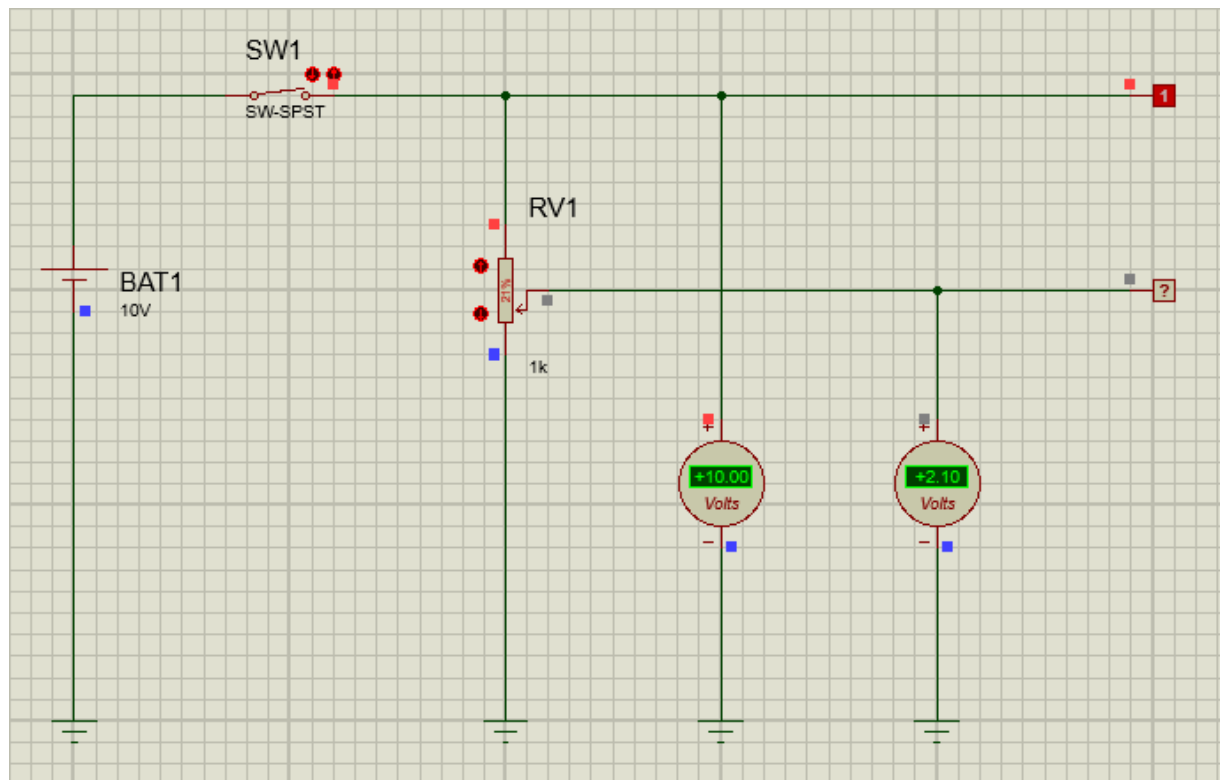
2. Logicprobe 2 shows logic conditions **1 (High)**

If the DC voltmeter 2: +3.01 Volts to +10.00 Volts



Logicprobe 2 shows logic conditions **0 (Low)**

If the DC voltmeter 2: +0.00 Volts to +2.01 Volts



### 3. Conclusion

when logicprobe 2 is in logic 1 condition, DC 2 voltmeter is +3.01 to +10.00

while when logicprobe 2 is in logic 0, DC 2 voltmeter is 0.00 to 2.01