QUEZON CITY UNIVERSITY

COLLEGE OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

AR101 – COMPUTER ORGANIZATION AND ARCHITECTURE

Project Proposal

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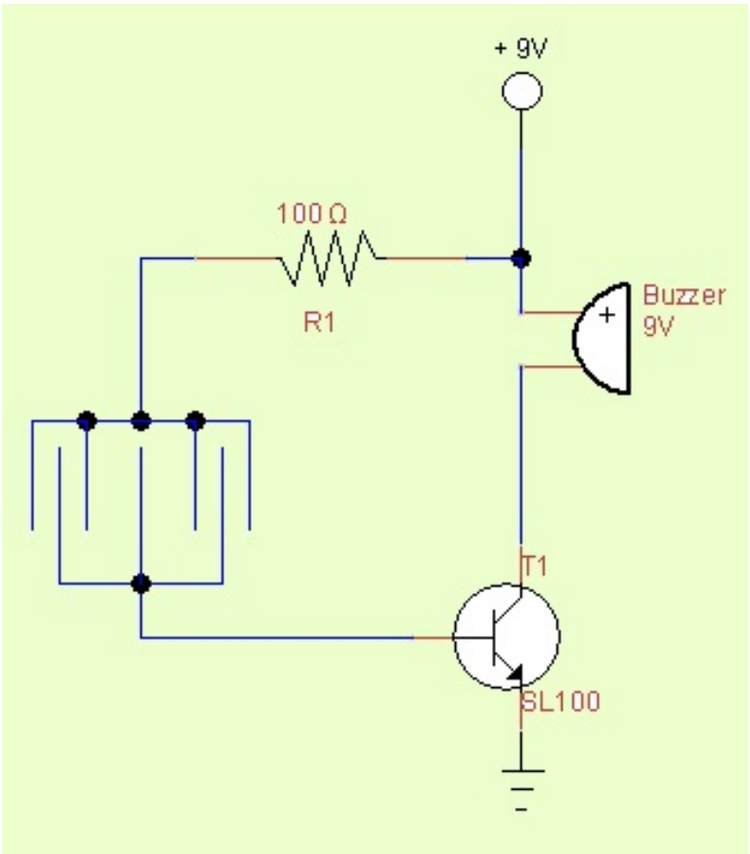
YEAR/SECTION: SBIT-3O **Date: 12/3/2024** **Prof.:** Norilyn Sindanum - Tues 1-4pm; 5-7pm

Rain Detector Assisted Automatic Roof and Drying System

- **The Rain Detector Assisted Automatic Roof and Drying System** is an automated solution designed to protect items and optimize drying. It utilizes a rain detection circuit to sense rainfall, triggering a DC motor to close a roof for protection. A fan dryer circuit is also integrated to aid in drying, ensuring the system functions efficiently in varying weather conditions.

Schematic Diagrams:

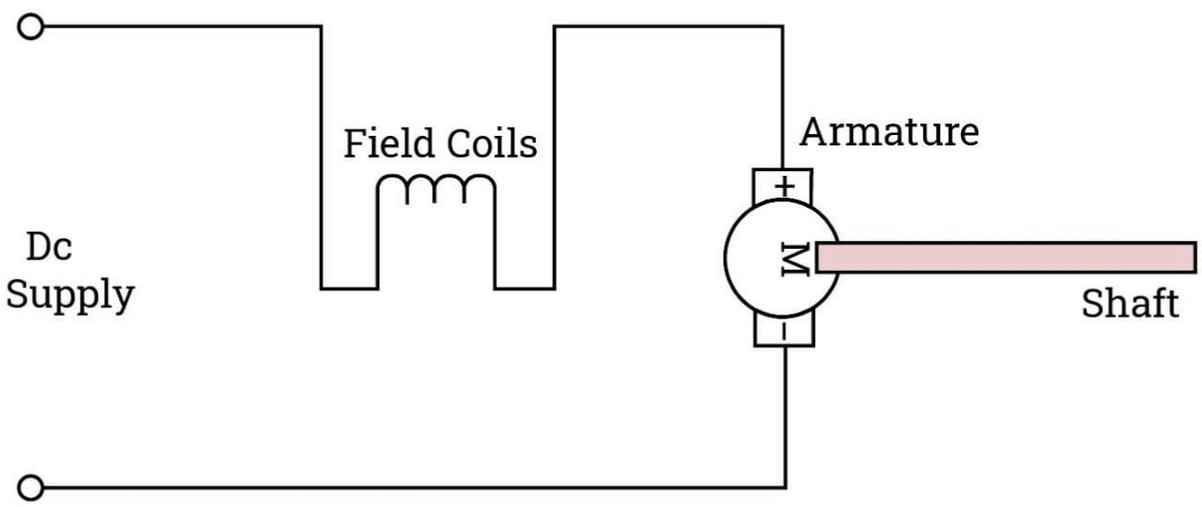
RAIN DETECTOR:



The **Rain Detector** circuit is designed to sense the presence of rain through a sensor plate or conductive surface. When water droplets make contact, the circuit detects the

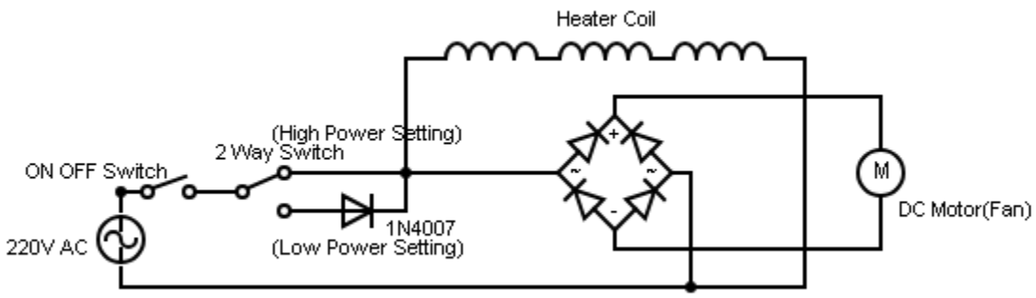
change in resistance or conductivity and generates a signal. This signal can then trigger further actions in the system, such as activating motors or sending alerts, ensuring automatic responses to rainfall.

DC Motor



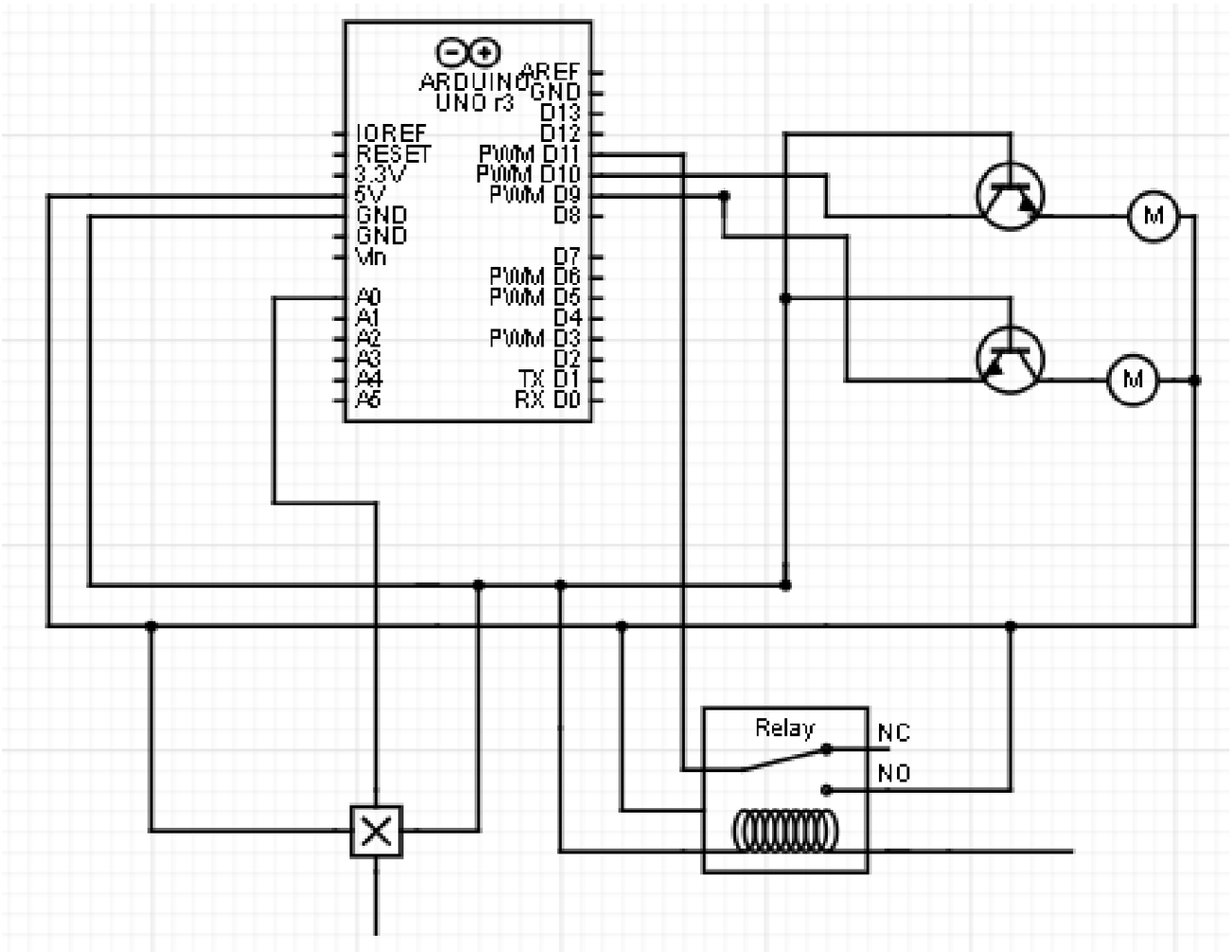
The **DC Motor** circuit is dedicated to operating the roof mechanism. It facilitates the automatic closing of the roof based on signals received from the rain detector. The motor driver ensures precise control of movement, providing a responsive and efficient way to protect the drying area during rainfall.

Fan Circuit::

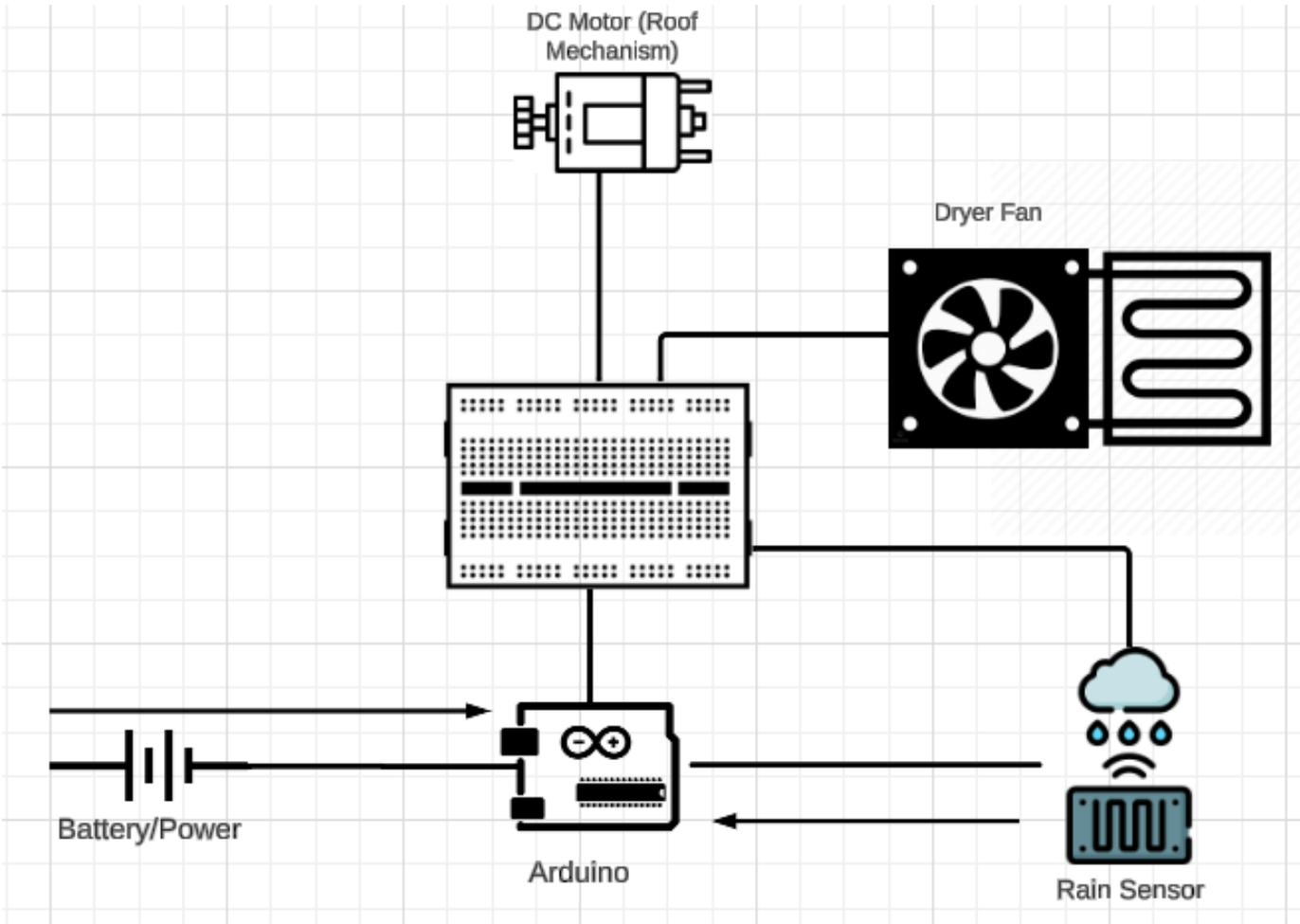


The **Fan Dryer** circuit powers a fan used for drying purposes in the system. It operates to assist in drying items beneath the roof, ensuring effective drying after rainfall or during humid conditions.

Combined Circuit Schematic Diagram:



Combined Circuit Block Diagram:



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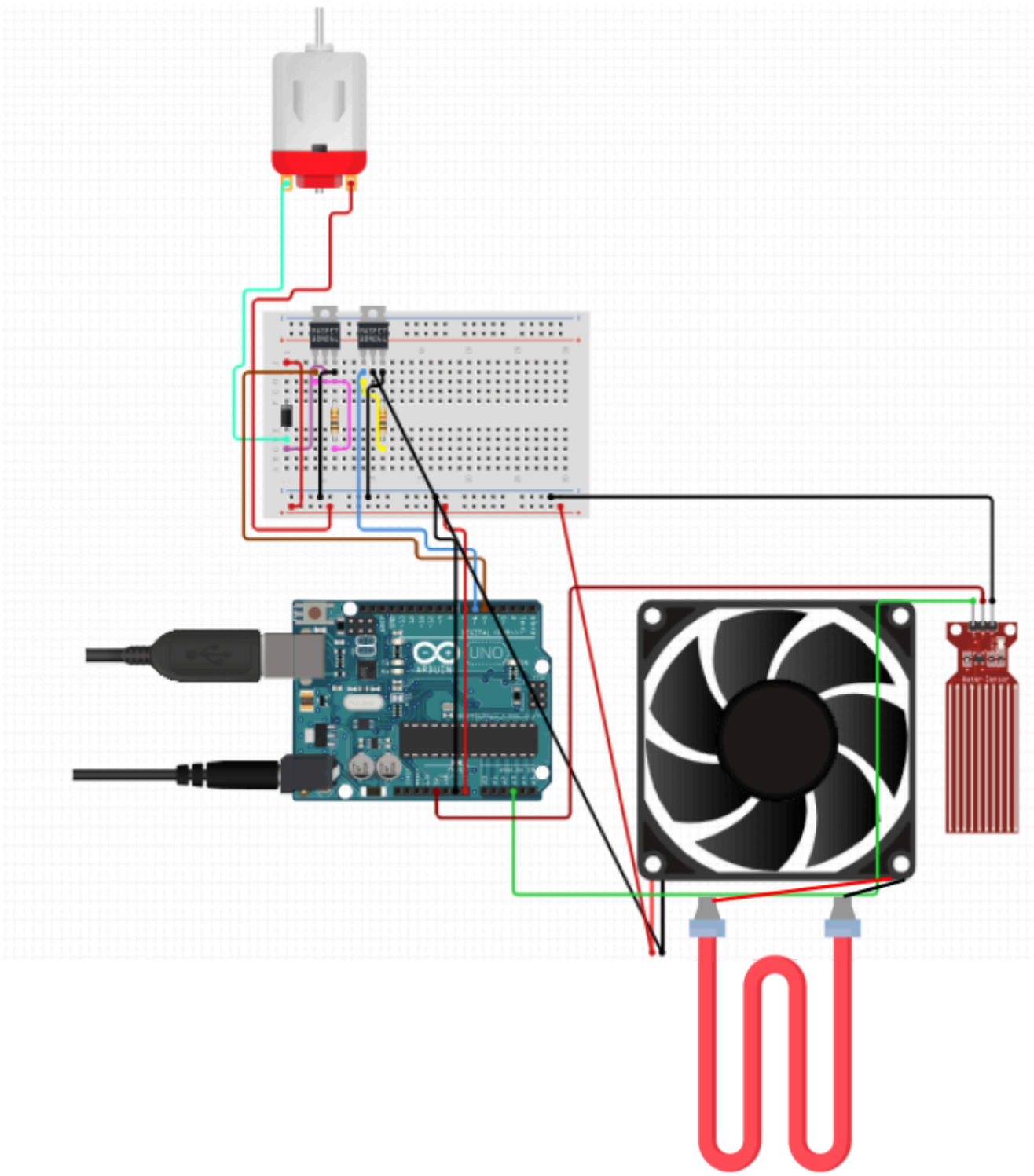
Pictorial Diagram



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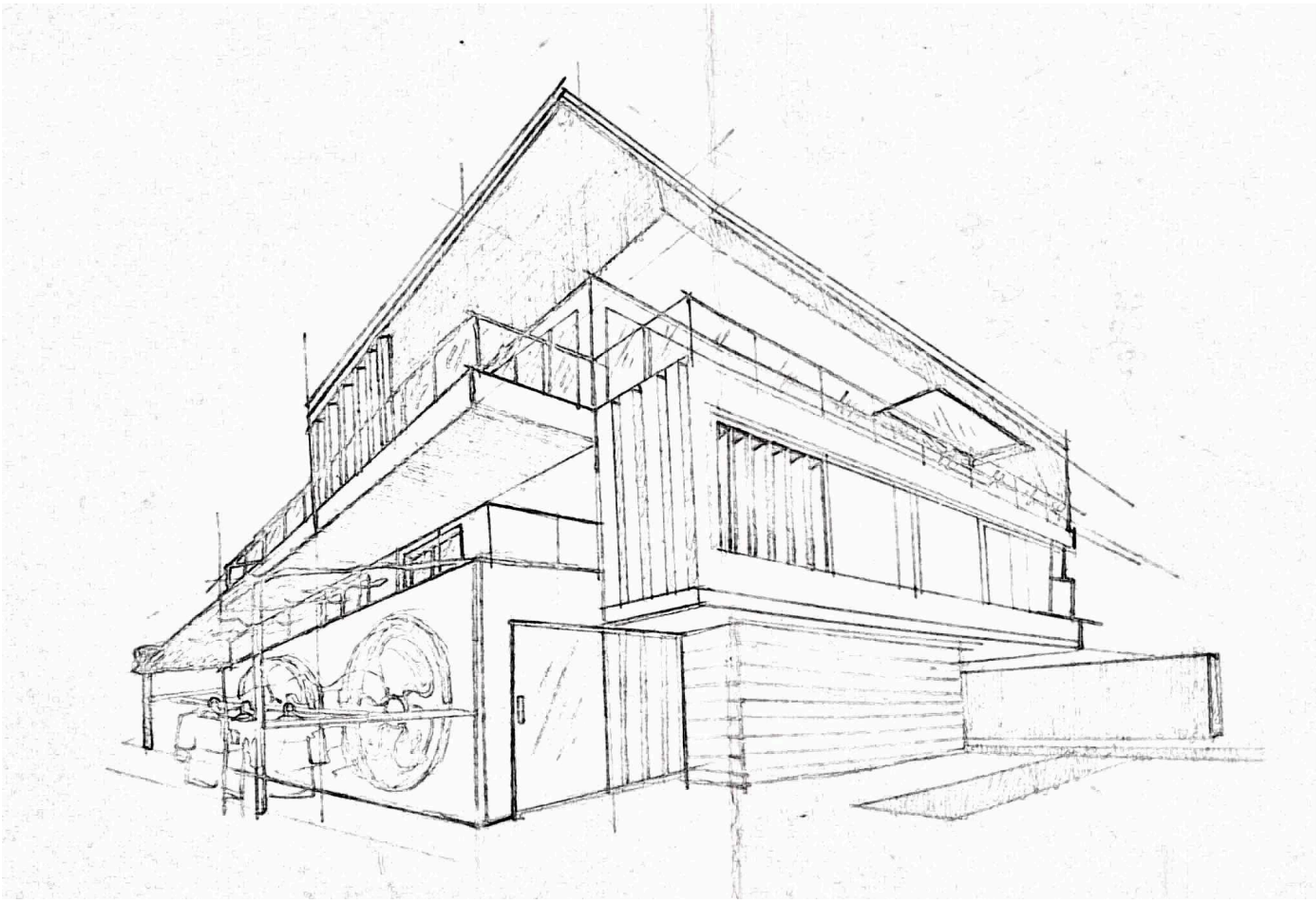
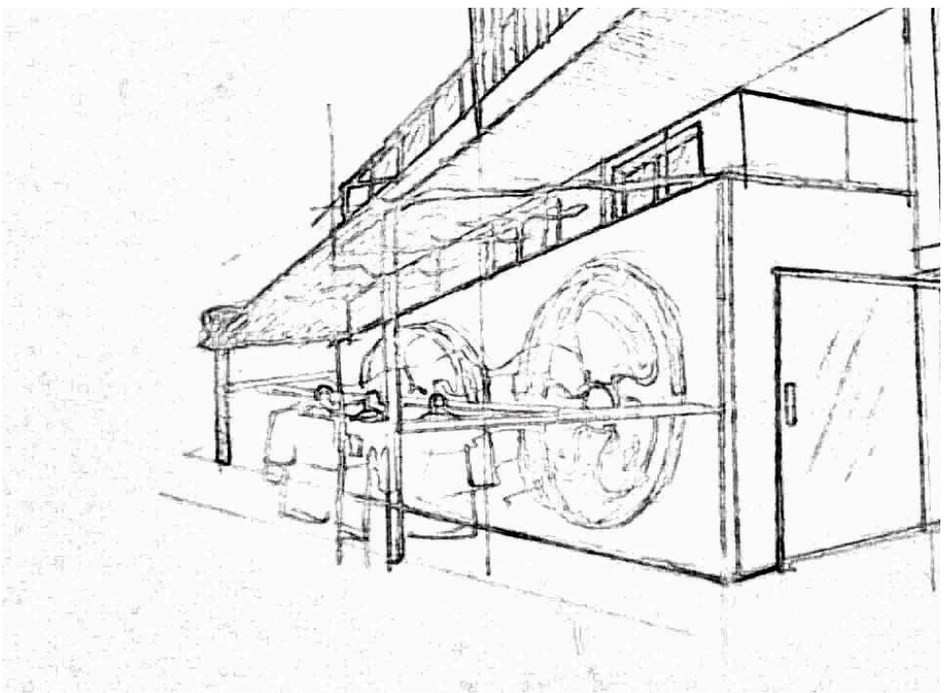
Dynamic view





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Multi-View