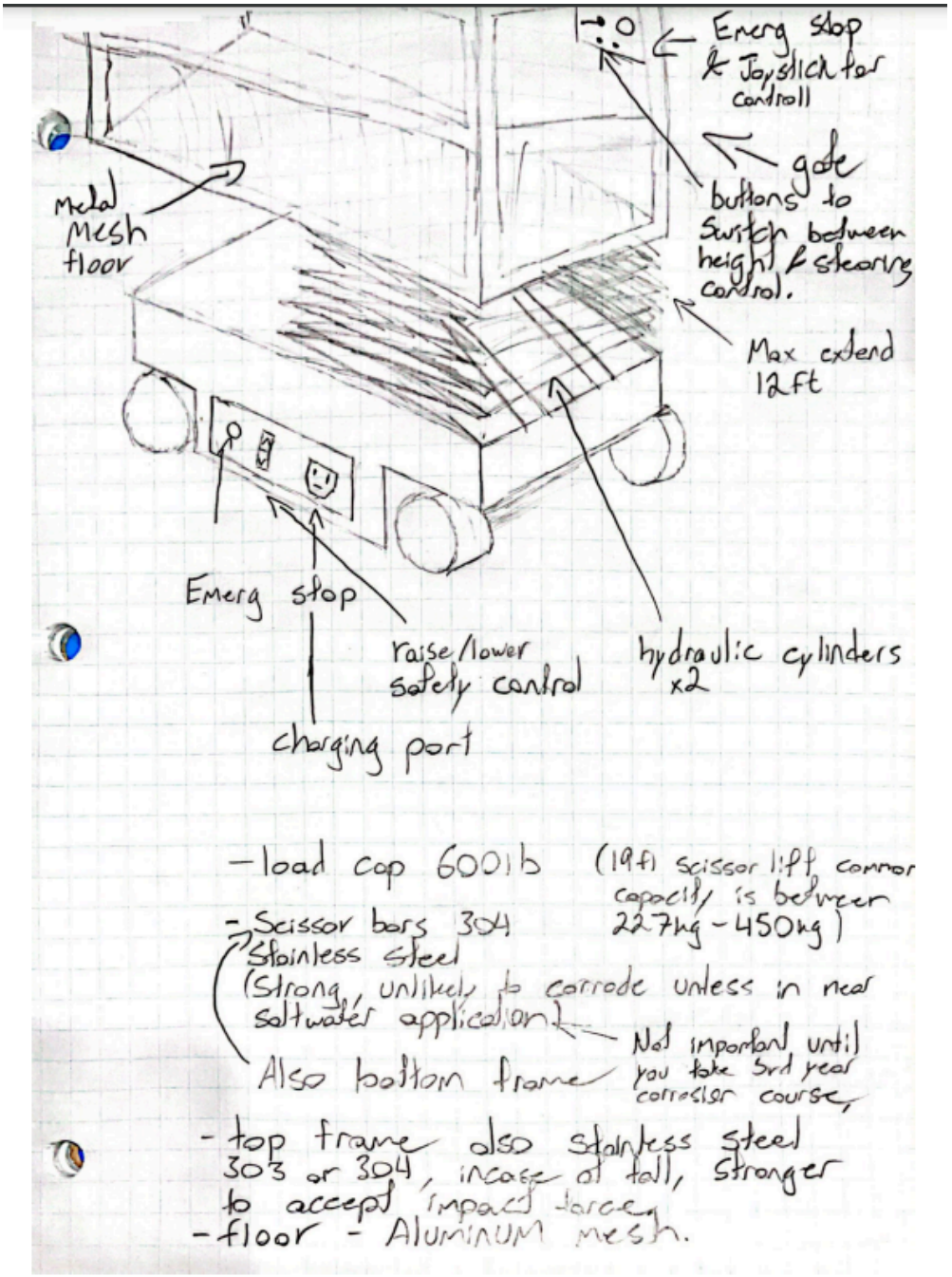
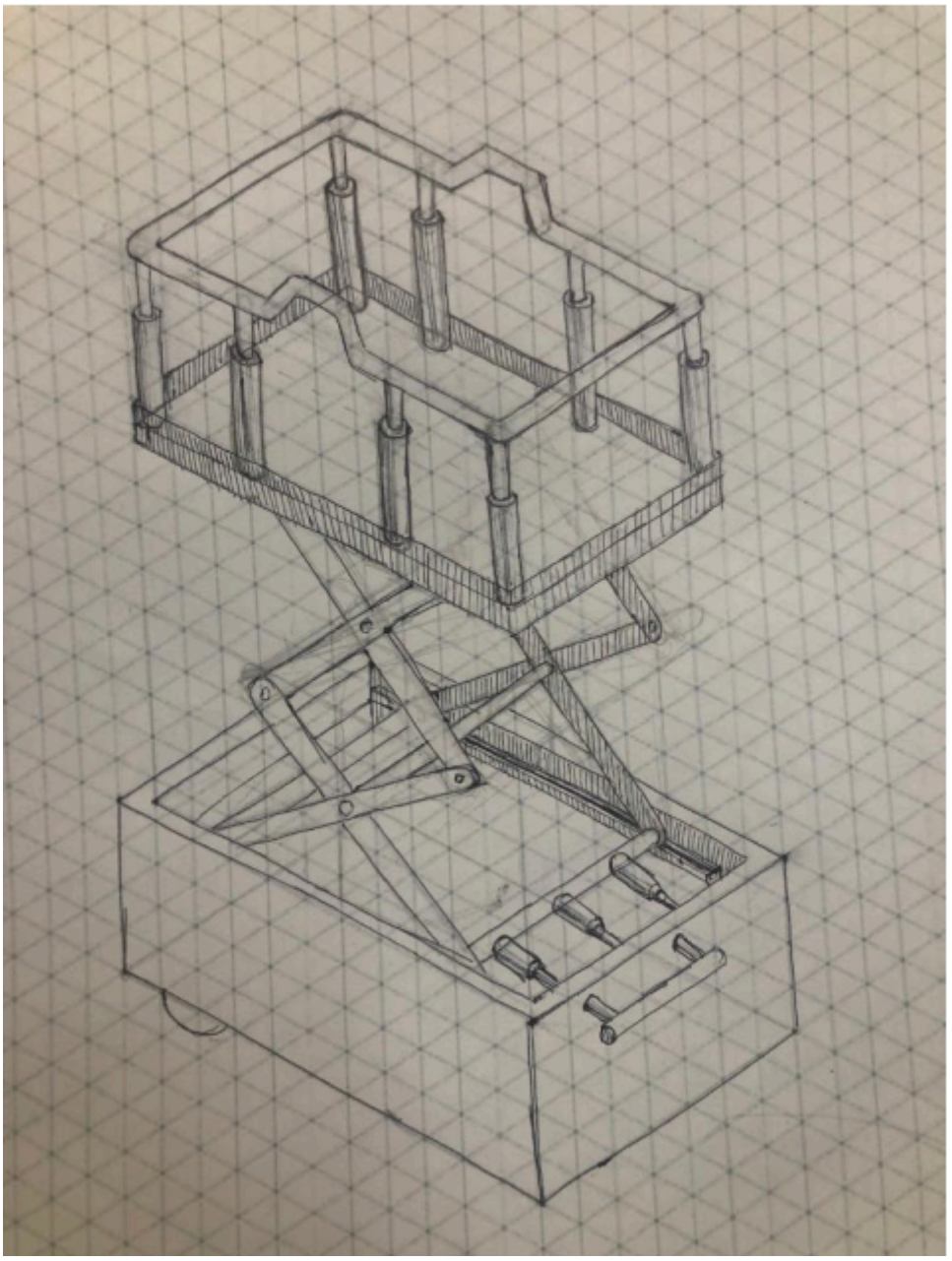
Alex Sabatini Design:

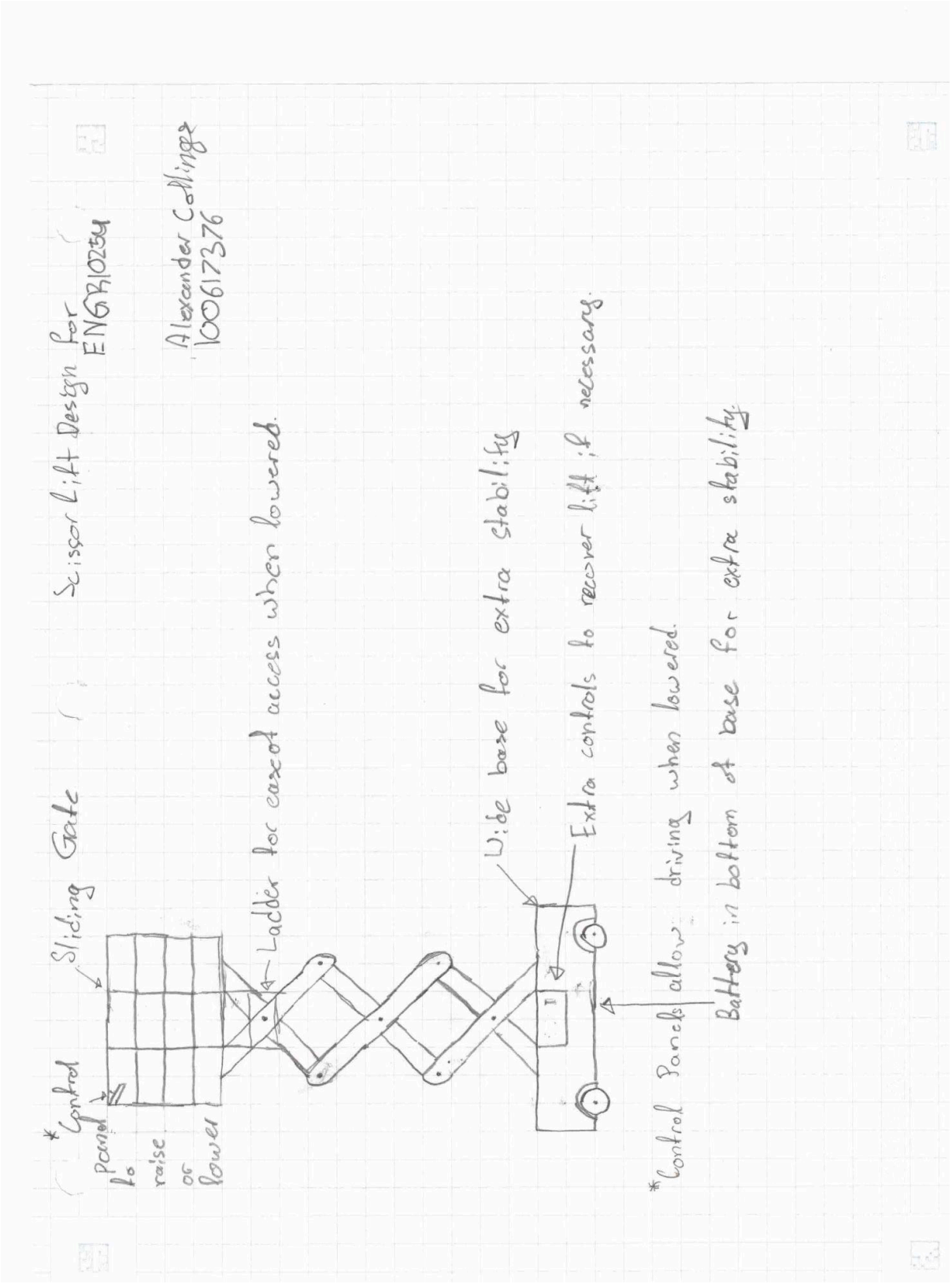


Umer Bashir Design:



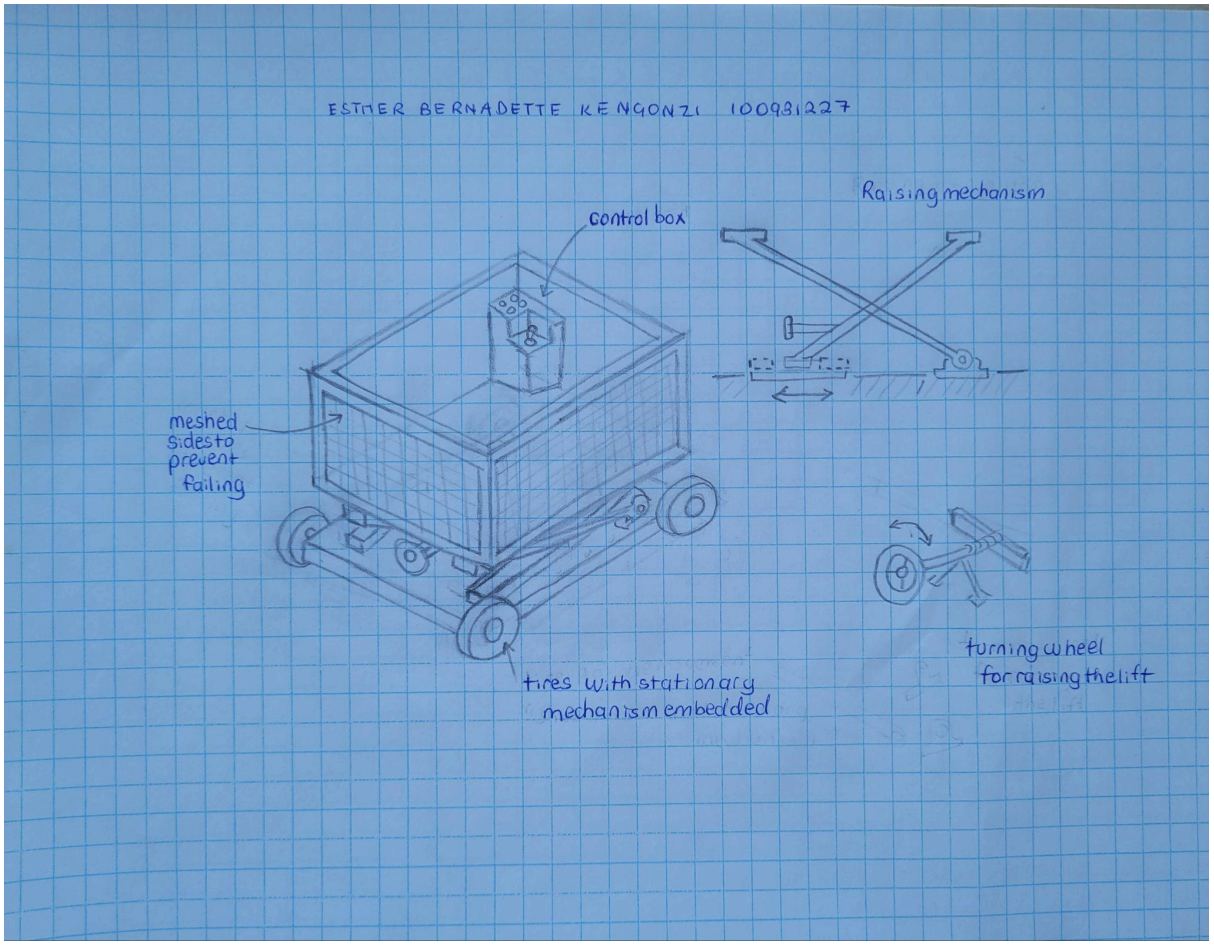
Designed to have a pneumatic actuator that would push the bottom rod to cause the scissors to lift, therefore moving the mechanism and allowing the platform to be raised. Furthermore, the design included wheels on one end and a handle on the other so that the lift could be rolled around like a wheelbarrow.

Alexander Collings Design:

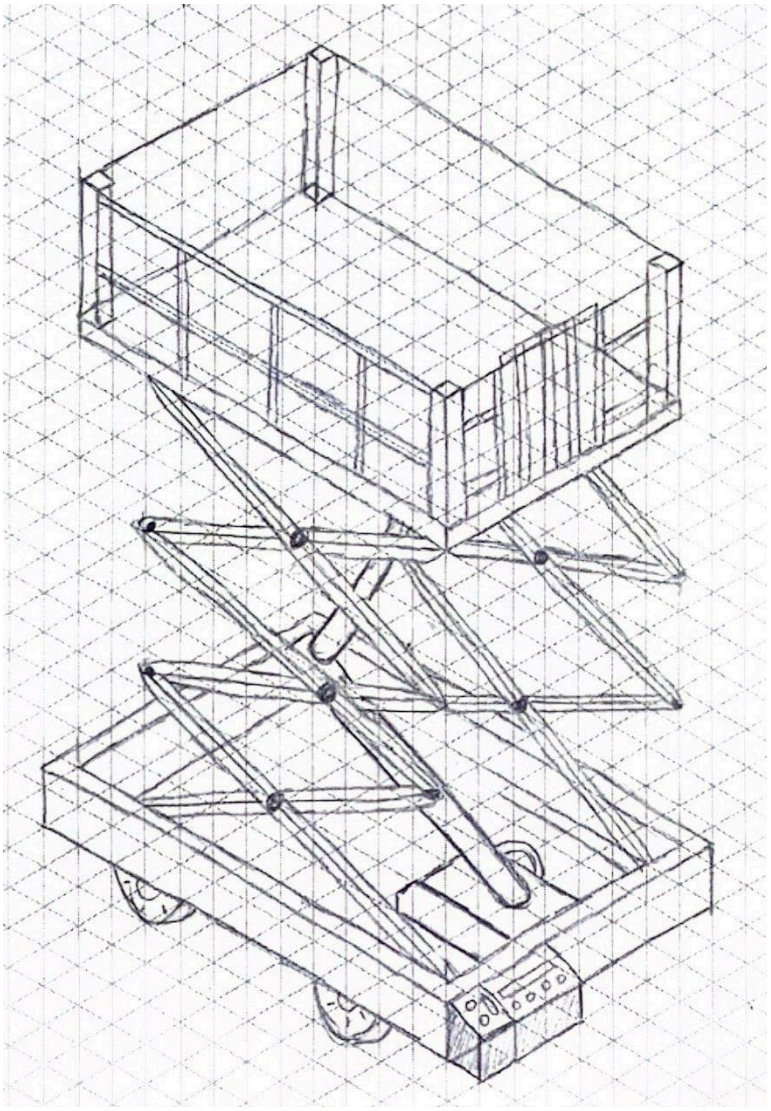


*Scale 1 square:1 foot

Esther Bernadette Kengonzi Design:

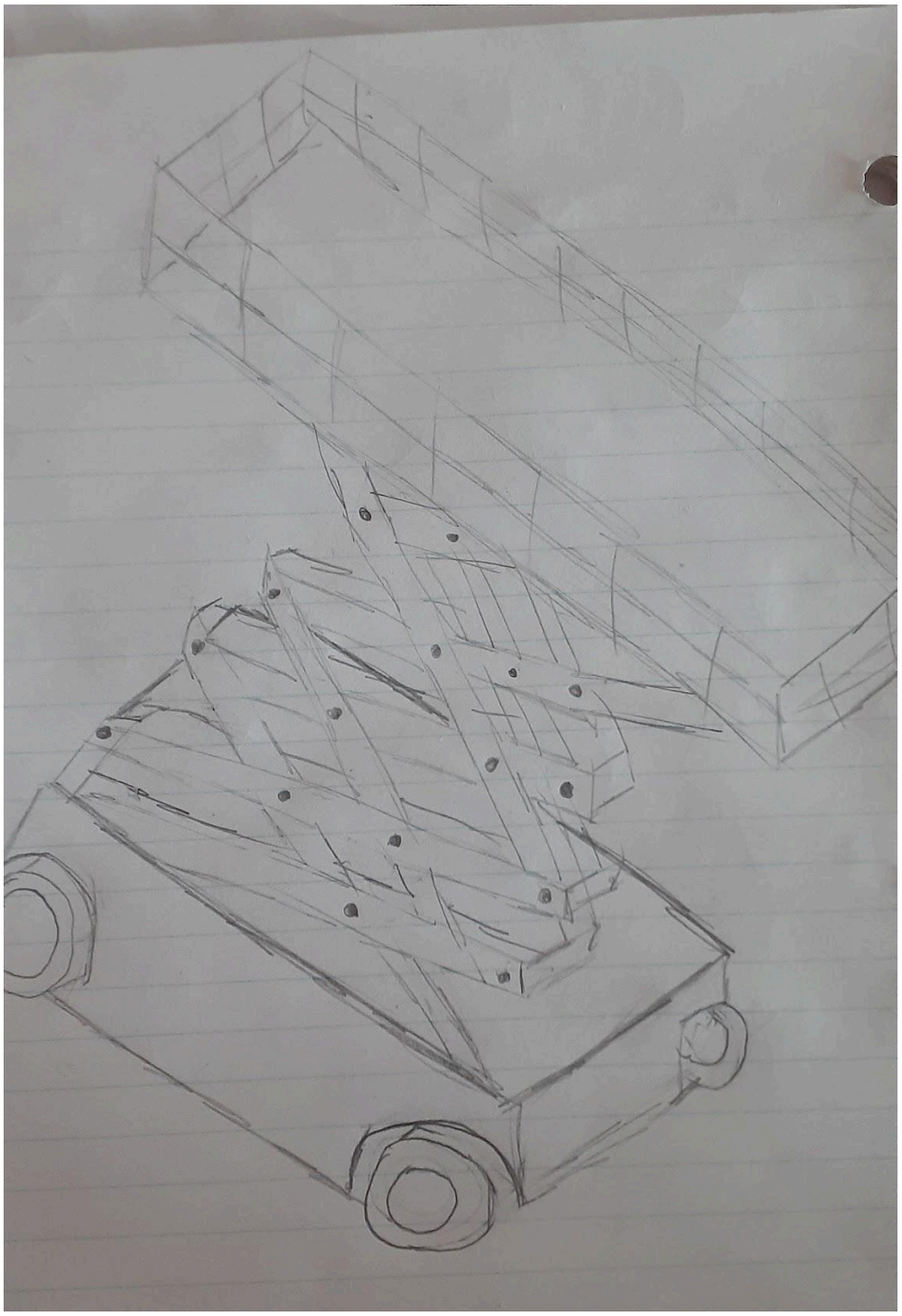


Nabhil Irtisham Design:

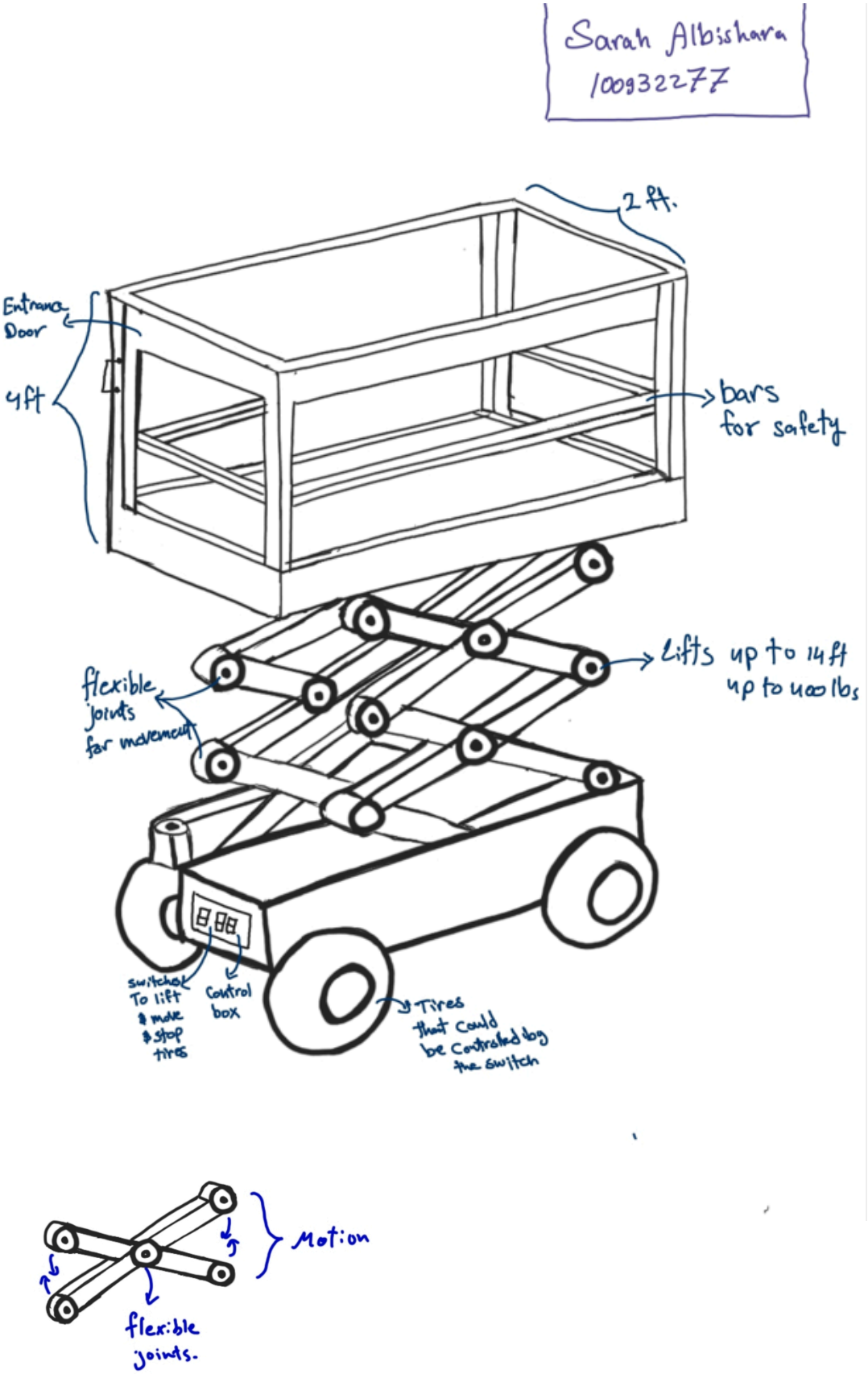


My scissor lift design uses a linear actuator with a hydraulic-based power source to generate steady up-and-down motion. The actuator design can be seen in the front-center of the base platform next to the power source - as the fluid enters the middle column, the cylinder extends and the upper platform raises. The fluid is drawn back into the reservoir to cause the platform to descend. The entire system is mounted on wheels for movement. The upper platform has guardrails and a swinging door. The maximum extended height is around 20 feet and the platform can hold up to 600 lbs in weight. The typical components featured in a scissor lift, such as the down valve, flow control valve, and the power source will all be present for the operation of the design.

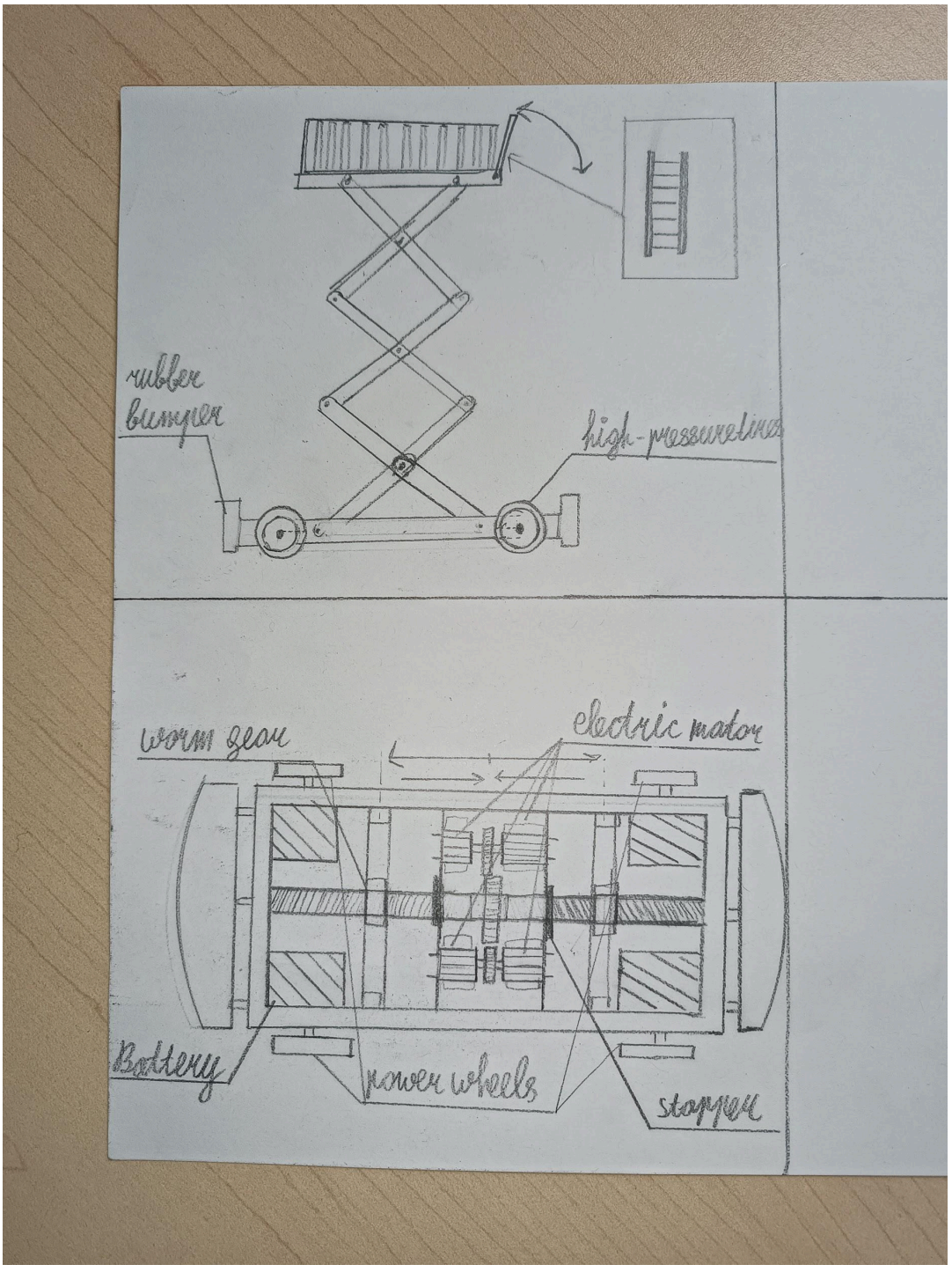
Quinn Lundy Design:



Sarah Albishara Design:



Ivan Voloshin Design:



My designs use worm-gears that would prevent the cradle from falling in case of the power failure. It's electric powered by Li-ion batteries similar to Tesla system. Has rubber bumpers to protect people around it as well as the walls from being damaged.

Final Design Concept Details:

- Steel Framed Cradle with Gate
    - 1.0m x 1.5m Cradle fit for 3 people
    - Rubber grip on top rail of cradle
- Two Control Panels
    - Forward/Back
    - Steering
    - Up/Down
    - Emergency Stop
    - Battery Indicator
    - Parking Brake (cannot be disabled when lifted)
    - Charging Port with Plastic Cover on bottom control panel
- Rubber Bumpers front and back of body
- Battery Powered Hydraulics
    - 2 cylinders to compress bottom of scissors from one side
- Modular system for battery replacement
- Stainless Steel Scissors, 4 crosses
    - Each beam is 0.8m x 0.05m x 0.2m
- Hazard lights for driving in warehouses

Blocks:

- Cradle - Sarah & Esther
  -Control Panel (upper)
- Scissors - Ivan
- Body - Alex & Umer
    - Wheels - Nabhil
    - Bumpers - Nabhil
    - Control Panel (Lower) - Quinn
    - Battery Compartments - Alex
- Hydraulics - Al
- Batteries - Ivan
- Hazard Lights - Quinn

Final Hand Sketch: