

DRAG LIFT DESIGN

INTRODUCTION

Drag lift is used by both skiers and snowboarders to move uphill. It is a kind of stick which is grabbed by the rider between their legs and is connected to a towing rope on top. The conventional design of drag lift is as below.

PROBLEM

The existing design of drag lift is difficult to be used by snowboarders and does not provide equal stability and comfort for snowboarders and skiers.

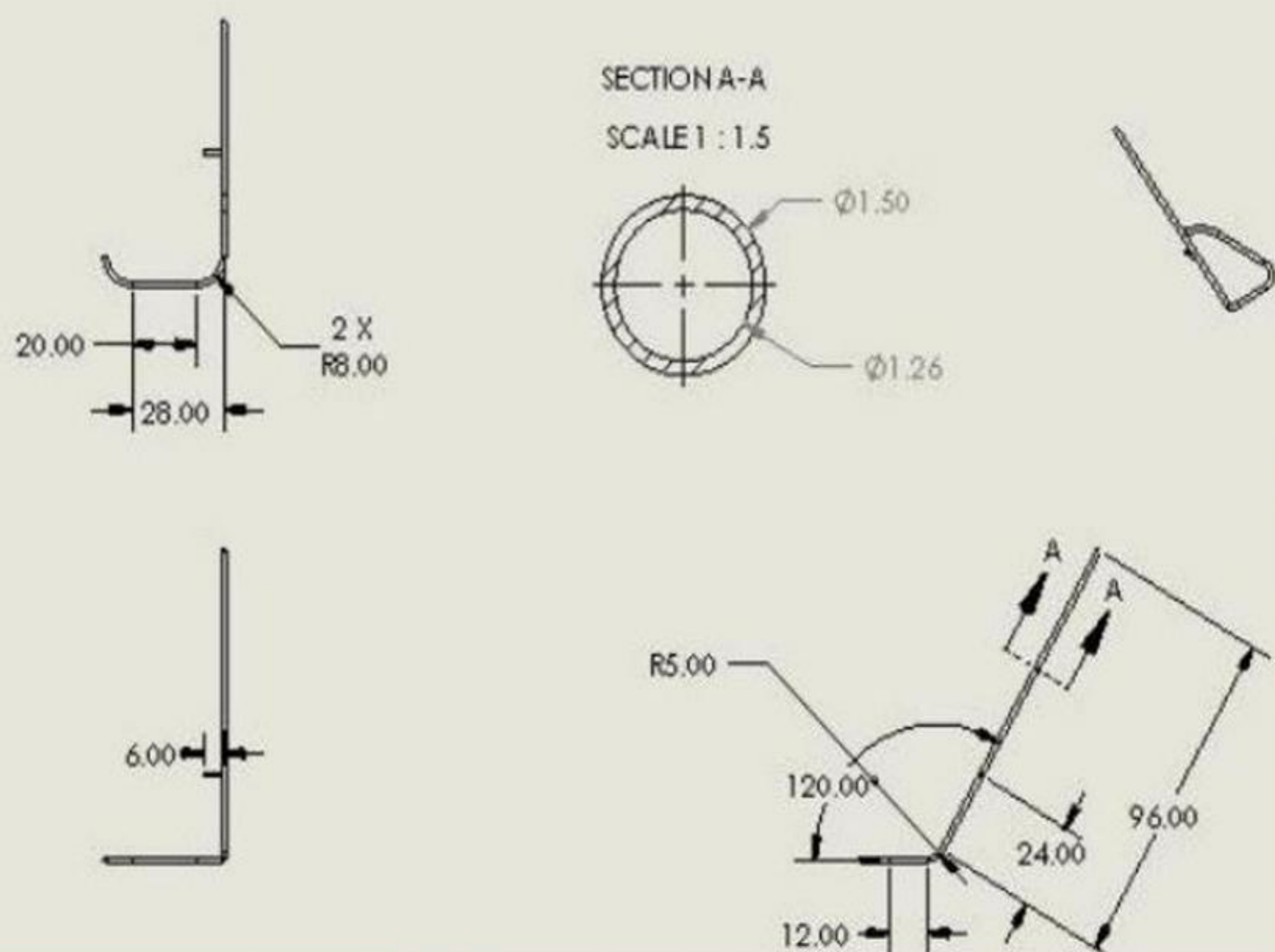
AIM

The aim of this project is to modify the design of existing drag lift to an up scaled design which is stable and easy to use for skiers and snowboarders.

COMPONENTS OF A DRAG LIFT

	Components	Description
Major Components	Haul Rope	The lift cable that moves the carrier up the hill while supporting its weight and passengers
	Terminals	Houses the motor, gearbox, auxiliary engine and drive and safety circuitry
	Towers	All other lift towers in line with the haul rope that are not drive/return terminals
	Carriers	The device on/in which customers ride (chairs, gondola cabins, tram cabins, T-bars)
	Safety Systems	Devices used to detect a cable coming off the sheave wheels or to trigger breaking during rollback.

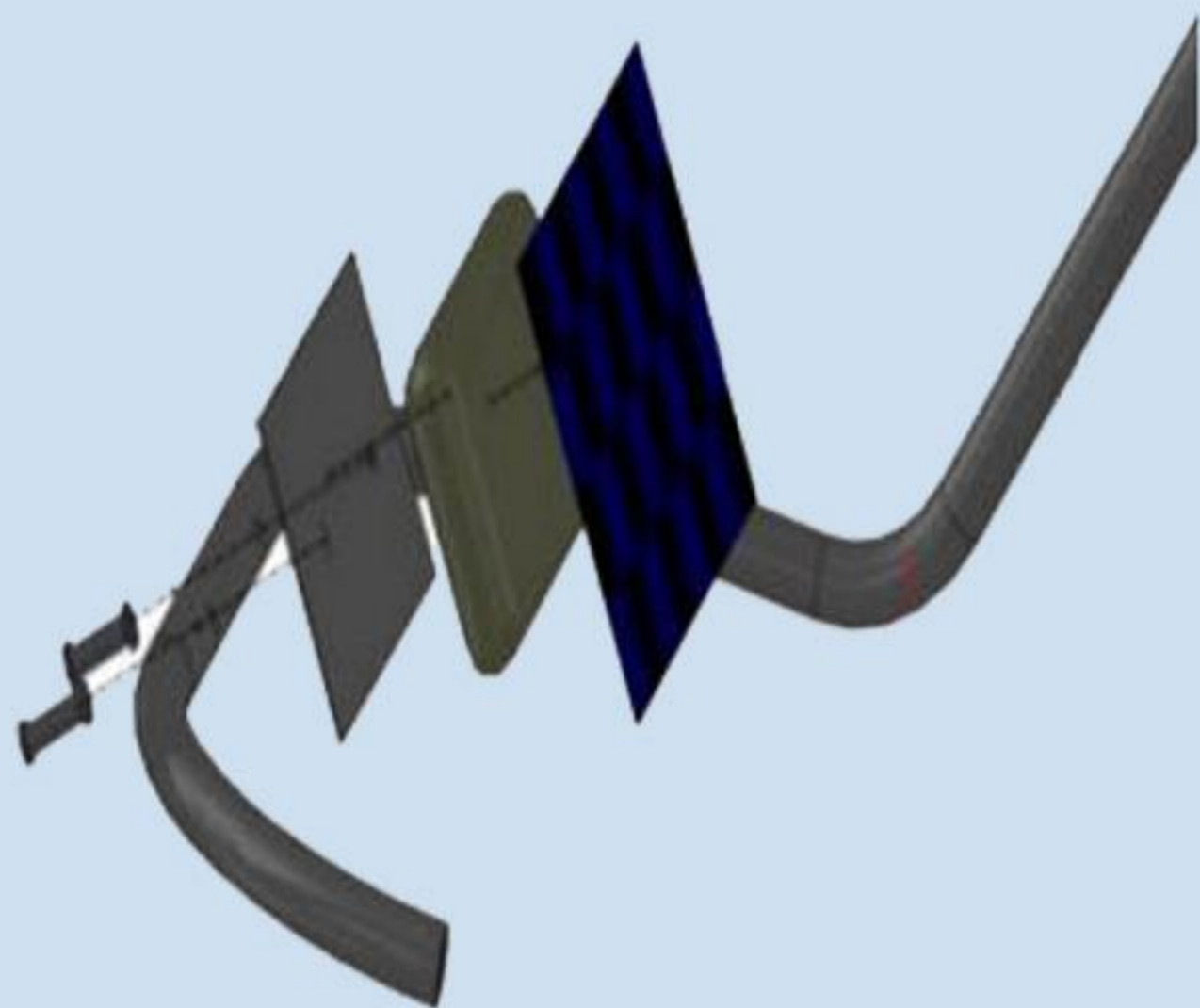
ENGINEERING DRAWING



FINAL DESIGN



Complete Assembly



Seat Design

STRESS ANALYSIS

