

Nature and Form

Bicycle Helmet

Flamingo inspired Bicycle
Helmet



Approval

This is to certify that the **DES Project** entitled “**Flamingo inspired Bicycle Helmet**” by Vaibhav Watile, 216130004 (M.des, 2nd year, Industrial Design 2021-23) is approved for the partial fulfilment of the Post graduate degree, Master of Design in Industrial design.

Digital Signature
Nishant Sharma (i09069)
27-Jul-23 06:54:26 AM

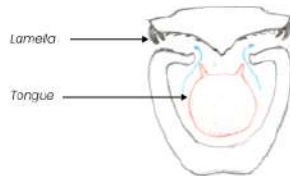
Project Guide :
Prof. Nishant Sharma

Flamingo

Understanding the bird



It plunges its head into the water, twists it upside down, and scoops the fish using its upper beak like a shovel.



It sucks water into its mouth by pulling the tongue backwards. Then it pushes its tongue forward to expel the water through the lamellae which capture and filter out any living creatures suspended in the organic soup. The tongue has backward facing spines to help swallow the trapped food.



Flamingos nests are mounds of mud along waterways, the top of the mound, in a shallow hole, the female lays one egg. After about 30 days, the egg hatches.



Flamingos are pink because of carotenoids in their diet. Brine shrimps are the main food source for flamingos, which are also pink as they feed on microscopic algae rich in the pigment.

Life span: 20-30 yrs in wild and 50 yrs in Zoo



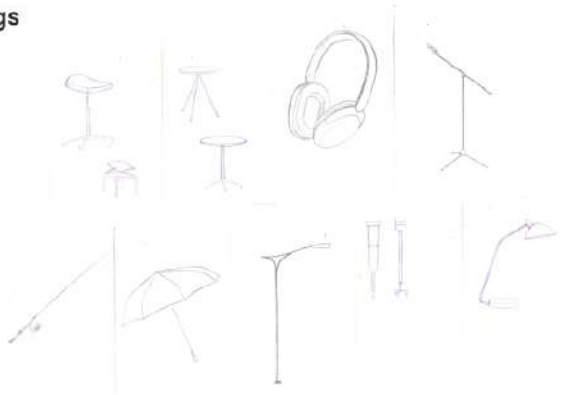
Understanding the Bird



Possible Applications

Long and Thin Legs

Crutches
Table Lamp
Chair
Table
Fishing Rod
Umbrella
Headphones
Mike Stand
Street Lights
Anchor



Endurance

Triathlon Bicycle
Fighter Plane
Shoes
Boat
Bow and Arrow
Mixer Grinder/ Blender
Fan
Washing Machine
Jetpack
Skates



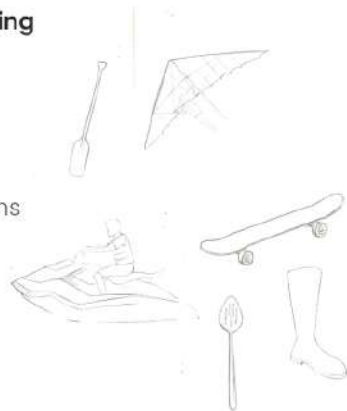
Heard Walk

Kinetic Sculpture
Soldiers Parade
Sprinklers
Drones
Festive Lightings
Shopping Cart
Trains
Windmills
Sunflower
Touchmenot



Takeoff/ Landing

Oars
Hang glider
Jetski
Skateboard
Cooking Spoons
Boots



Beak

Helmet
Scissors
Stapler
Punching Machine
Adjustable plier
Fuel Pump Nozzle
Car Jammer
Grass Cutter
Fruit Picker
Snake Catcher
Lemon Squeezer



Swim

Flippers
Surfboard
Boat
Jetlev
Elliptical
Wingsuit



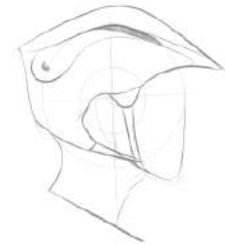
Cleaning Feathers

Comb
Blueberry Picking
Tool
Toothbrush
Washing Brush
Trimmer
JCB
Cultivator
Spade
Plough

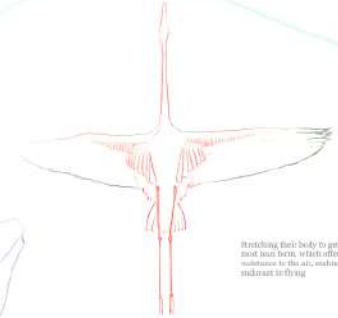


Form Ideation

Bicycle Helmet



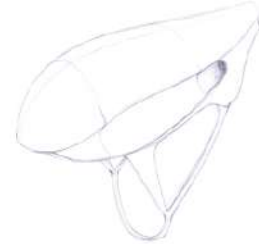
Flamingos wig their neck around their body to communicate.



Stretching their body to get the most from their wings, which offers them resistance to the air, making them endure in flying.



Spreading their wings to feel the wind.



Model making

Bicycle Helmet



Completed Model

Bicycle Helmet







