DELTA WING

HOW TO GENERATE THE LIFT FORCE?

F How to generate the lift force?

F Convert an air flux into a force

F How to convert an air flux into a force?

B Exploit the fluid dynamic effects of the flux directed toward a sloped surface

Group 3

F How to guide laterally?

F Generate side forces

F How to generate side forces?

F Change the lateral inclination of the surface

What if unbalanced forces cause a rotation of the system? Maybe the unknown line can be interpreted as a directional fin?

F How to change the lateral inclination of the surface?

F Rotate the surface around an axis

F How to rotate the surface around an axis?

B Exploit vertical forces applied to the left and to the right of the surface, and a cylindrical constraint placed centrally to the surface

F How to generate the vertical forces?

How the cylindrical constraint was intended to be manufactured?

Group 1

B Use flexible links connected to a rigid tilting element

F How to direct the flexible links toward the rigid element?

Which form the rigid element was intended to have?

Which kind of material was intended to be used for the rigid element?

F How to rotate the rigid element?

Group 8

S Fixed rings

F How to fix the rings in their position?

How the rings were supposed to be manufactured?

F connect the rings to wooden rods

F How to connect the rings to the rigid rods?

Which form the rings were intended to have?

How the rings were supposed to be manufactured?

S Ring tied with cord

B Use the principle of the nail

B Use the principle of the screw

B Exploit vertical forces applied to the front and the back to the element, and a cylindrical constraint placed centrally

F How to generate the vertical forces on the rigid element?

B Exploit human force (Feet)

F How to generate the reaction force?

B Exploit the inertia of the pilot and the structure

F How to increase the inertial reaction?

Maybe the unknown curved line was intended to represent something aimed at increasing the inertial reaction?

Group 4

B How to exploit the fluid dynamic effects of the flux directed toward a sloped surface

S Flat surface made by tissue

S Flat metallic surface

Which kind of tissue was intended to be used?

Group 3

F How to constrain the tissue in order to sustain the lift force?

Group 1

S Wooden rods

How the rods are linked to the tissue?

S Metal edge

How the edge was linked to the tissue?

Which section the edge was intended to have?

Group 2

S Wooden edge

Which section the edge was intended to have?

How the edge was linked to the tissue?

Group 3

F How to guide vertically?

F Change the slope angle of the surface

F How to change the slope angle of the surface?

F Rotate the surface around an axis

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B Exploit vertical forces applied to the front and the back to the surface, and a cylindrical constraint placed centrally to the surface

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B Use the principle of the screw

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F How to generate the vertical forces on the rigid element?

B Exploit human force (Hands)

F How to generate the reaction force?

B Exploit the inertia of the pilot and the structure

F How to increase the inertial reaction?

Maybe the unknown curved line was intended to represent something aimed at increasing the inertial reaction?

F How to land "safely"?

Maybe the unknown curved line was intended to represent something aimed at supporting the landing operations?

HOW TO HOST THE PILOT?

F How to host the pilot?

F Generate a horizontal reaction on the body (against accelerations from changing direction)

F How to generate a horizontal reaction?

B Exploit the third principle of dynamic

B How to exploit the third principle of dynamic to generate a horizontal reaction?

S vertical pole between knees

S Handle

Which form the handle was intended to have?

HARNESS

S Harness

How the cord elements were intented to be weaved around the human body?

Which kind of material was intended to be used for the cords?

F Generate a vertical reaction on the body (against gravity)

F How to generate a vertical reaction?

B Exploit the third principle of dynamic

B How to exploit the third principle of dynamic to generate a vertical reaction?

S seat

Which form the seat was intended to have?