SUMMARY OF FORMULATION LOGIC FOR AATRIZINVENTOR SOLUTION

Work Paper

If you applied summary or abbreviated descriptions, have them available to review this logic.

Objective of the Innovation Challenge

Improve Condition of primitive man to fly to Mars by jumping from a ramp with a wooden spring, affected by gravity

Evaluated Object S1

MARSNAUT - Type: Moving

Object S2 interacting with S1

Ramp and spring Impeller - Type: Stationary

Physical Variable or Characteristic

Ability to fly

the undesirable

With Less Ability to fly xxxxthere is undesirable effects, then there is More difficulty to :

Improve Condition of primitive man to fly to Mars by jumping from a ramp with a wooden spring, affected by gravity

the desirable

With More Ability to fly there is desirable effect, then there is More ease to :

Improve Condition of primitive man to fly to Mars by jumping from a ramp with a wooden spring, affected by gravity

TRIZ Innovation Parameters Evaluated

TRIZ Innovation Parameters	Undesirable Effect (UDE)/ Desirable Effect (DE)	Evaluate
1. Heaviness of moving object	MARSNAUT : There is More difficulty to Improve Condition of primitive man to fly to Mars by jumping from a ramp with a wooden spring, affected by gravity because there is More Weight for flying using ramp and spring impeller Effect : undesirable	Yes No
3. Length of moving object	MARSNAUT : There is More difficulty to Improve Condition of primitive man to fly to Mars by jumping from a ramp with a wooden spring, affected by gravity because there is Less Distance of flight covered using ramp and spring impeller Effect : undesirable	Yes No
9. Speed	MARSNAUT : There is More difficulty to Improve Condition of primitive man to fly to Mars by jumping from a ramp with a wooden spring, affected by gravity because there is Less Flight speed achieved using ramp and spring impeller Effect : undesirable	Yes No
22. Loss of Energy	MARSNAUT : There is More difficulty to Improve Condition of primitive man to fly to Mars by jumping from a ramp with a wooden spring, affected by gravity because there is More Energy loss in flight due to gravity not overcome by impeller Effect : undesirable	Yes No
10. Force/ Intensity	MARSNAUT : There is More difficulty to Improve Condition of primitive man to fly to Mars by jumping from a ramp with a wooden spring, affected by gravity because there is Less Flight thrust using ramp and spring impeller Effect : undesirable	Yes No

TRIZ Innovation Parameters	Undesirable Effect (UDE)/ Desirable Effect (DE)	Evaluate
12. Shape / composition / configuration	MARSNAUT : There is More difficulty to Improve Condition of primitive man to fly to Mars by jumping from a ramp with a wooden spring, affected by gravity because there is Less Appropriate form for flying using ramp and spring impeller Effect : undesirable	Yes No
29. Fulfillment of desired outcome	MARSNAUT : There is More difficulty to Improve Condition of primitive man to fly to Mars by jumping from a ramp with a wooden spring, affected by gravity because there is Less Compliance with flight plan using ramp and spring impeller Effect : undesirable	Yes No
34. Ease of change, repair or maintain	MARSNAUT : There is More ease to Improve Condition of primitive man to fly to Mars by jumping from a ramp with a wooden spring, affected by gravity because there is More Ease of changing conditions to fly to Mars Effect : desirable	Yes No