

# 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 long-distance voice communication affected by environmental interference

Evaluated Object S1

EMITTER'S VOICE MESSAGE - Type: Moving

Object S2 interacting with S1

RECIEVER - Type: Moving

Physical Variable or Characteristic

Communication quality

the undesirable

With Less Communication quality there is undesirable effects, then there is More difficulty to :

Improve long-distance voice communication affected by environmental interference

the desirable

With More Communication quality there is desirable effect, then there is More ease to :

Improve long-distance voice communication affected by environmental interference

## TRIZ Innovation Parameters Evaluated

TRIZ Innovation Parameters	Undesirable Effect (UDE)/ Desirable Effect (DE)	Evaluate
3. Length of moving object	<p>EMITTER'S VOICE MESSAGE : There is More difficulty to Improve long-distance voice communication affected by environmental interference because there is More Distance to cover to reach the receiver</p> <p>Effect : undesirable</p>	<input data-bbox="1356 220 1469 304" type="checkbox"/> Yes <input data-bbox="1356 310 1469 394" type="checkbox"/> No
12. Shape / composition / configuration	<p>EMITTER'S VOICE MESSAGE : There is More difficulty to Improve long-distance voice communication affected by environmental interference because there is Less Appropriate form to be transmitted through the environment</p> <p>Effect : undesirable</p>	<input data-bbox="1356 510 1469 594" type="checkbox"/> Yes <input data-bbox="1356 600 1469 684" type="checkbox"/> No
18. Emission intensity	<p>EMITTER'S VOICE MESSAGE : There is More difficulty to Improve long-distance voice communication affected by environmental interference because there is Less Emission intensity to reach the receiver</p> <p>Effect : undesirable</p>	<input data-bbox="1356 837 1469 921" type="checkbox"/> Yes <input data-bbox="1356 928 1469 1012" type="checkbox"/> No
21. Power/ Energy per unit of time	<p>EMITTER'S VOICE MESSAGE : There is More difficulty to Improve long-distance voice communication affected by environmental interference because there is Less Transmission power to reach the receiver</p> <p>Effect : undesirable</p>	<input data-bbox="1356 1129 1469 1213" type="checkbox"/> Yes <input data-bbox="1356 1220 1469 1304" type="checkbox"/> No
24. Loss of Information	<p>EMITTER'S VOICE MESSAGE : There is More difficulty to Improve long-distance voice communication affected by environmental interference because there is More Loss of information due to poor communication with receiver</p> <p>Effect : undesirable</p>	<input data-bbox="1356 1417 1469 1501" type="checkbox"/> Yes <input data-bbox="1356 1507 1469 1591" type="checkbox"/> No
30. Object-affected harmful factors	<p>EMITTER'S VOICE MESSAGE : There is More difficulty to Improve long-distance voice communication affected by environmental interference because there is More Affected by harmful environmental factors that prevent clear reach to the receiver</p> <p>Effect : undesirable</p>	<input data-bbox="1356 1707 1469 1791" type="checkbox"/> Yes <input data-bbox="1356 1797 1469 1881" type="checkbox"/> No

TRIZ Innovation Parameters	Undesirable Effect (UDE)/ Desirable Effect (DE)	Evaluate
39. Productivity	EMITTER'S VOICE MESSAGE : There is More ease to Improve long-distance voice communication affected by environmental interference because there is More Transmission productivity to reach the receiver  Effect : desirable	<input data-bbox="1357 216 1468 302" type="checkbox"/> Yes <input data-bbox="1357 306 1468 392" type="checkbox"/> No