Project Name:	Transaxle design using AI	**Start Date:**	2024-01-01
Project Number:	2410	**Completion Date:**	2024-12-31

Project Details:

Scientific or Technological Objectives:

Field of Science/Technology:

Mechanical engineering (2.03.01)

Project Details:

Intended Results: Develop new materials, devices, or products
Work locations: Research Facility
Key Employees:
Evidence types:

Scientific or Technological Advancement:

Uncertainty #1: Technological uncertainty

Technology or Knowledge Base Level:

Activity #1-1: AI generated result - Ineligible (Fiscal Year 2024)

Methods of experimentation:

Ruth and Morgan's contribution Analysis of the contribution
Recognized a problem (needing a transaxle) GP2-
Prompted the AI system to solve the problem
Reviewing the AI output

Results:

Conclusion:

GP3 - Recognition and appreciation of an invention without a contribution to conception is not sufficient.

Recognition of a problem does not rise to the level of Conception Prompt is only a restatement of the problem, no inventive contribution in how the prompt is constructed

Activity #1-2: Transaxle to practice - Ineligible (Fiscal Year 2024)

Methods of experimentation:

proof of concept prototype

Ruth and Morgan's contribution
Selected steel for the building the design: Selection of a well-known material is insignificant in quality when compared to the full scope of the claimed invention. (Second Pannu factor)

Morgan Recognized a problem; Prompted the AI system to solve the problem; Reviewing the AI output
As in scenario 1, Ruth and Morgan's contributions to identifying a problem and prompting Puerto5 to solve the problem are not significant.

Reduced the transaxle to practice
GP 3- Reducing an invention to practice alone is not a significant contribution that rises to inventorship

Results:

Conclusion:

Activity #1-3: Redesign on horizontal plane - Eligible (Fiscal Year 2024)

Methods of experimentation:

Ruth and Morgan's Contribution
Created the new design based upon a suggestion from the AI system including:
• Elongated case
• Specific placement of elements in cases
• Specific location of separation in casing

Results:

GP 1 – a natural person's use of an AI system in creating an AI-assisted invention does not negate the person's contributions as an inventor
Clip fastener (Morgan) Original design by a natural person and a significant element of the claimed invention

Conclusion:

Activity #1-4: AI input on fabrication - Eligible (Fiscal Year 2024)

Methods of experimentation:

Results:

Conclusion:

Activity #1-5: AI system designer - Ineligible inventor (Fiscal Year 2024)

Methods of experimentation:

Results:

Conclusion: