

Engineering Design Build a WiggleBot

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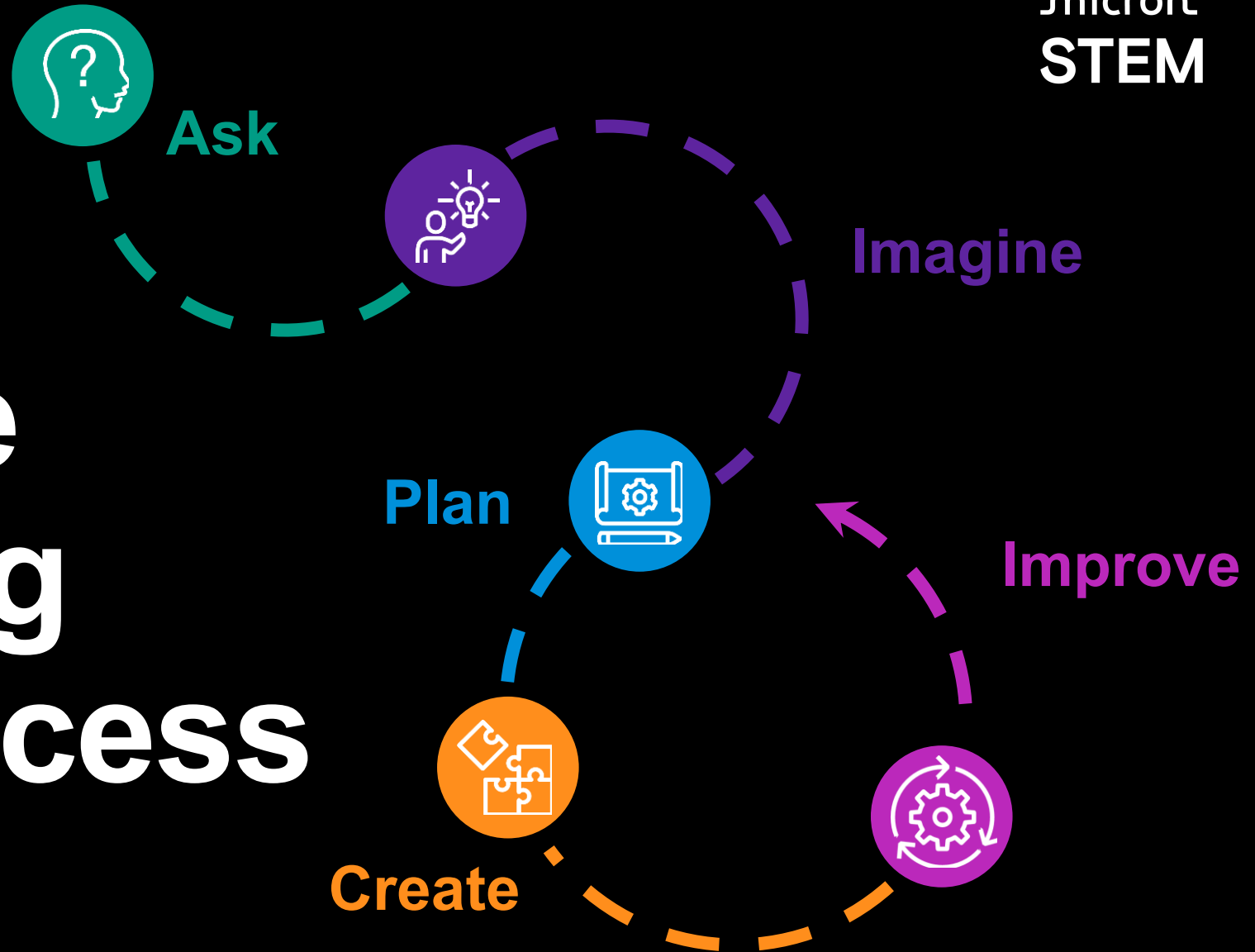
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Engineering Design

Build a WiggleBot



Explore the Engineering Design Process



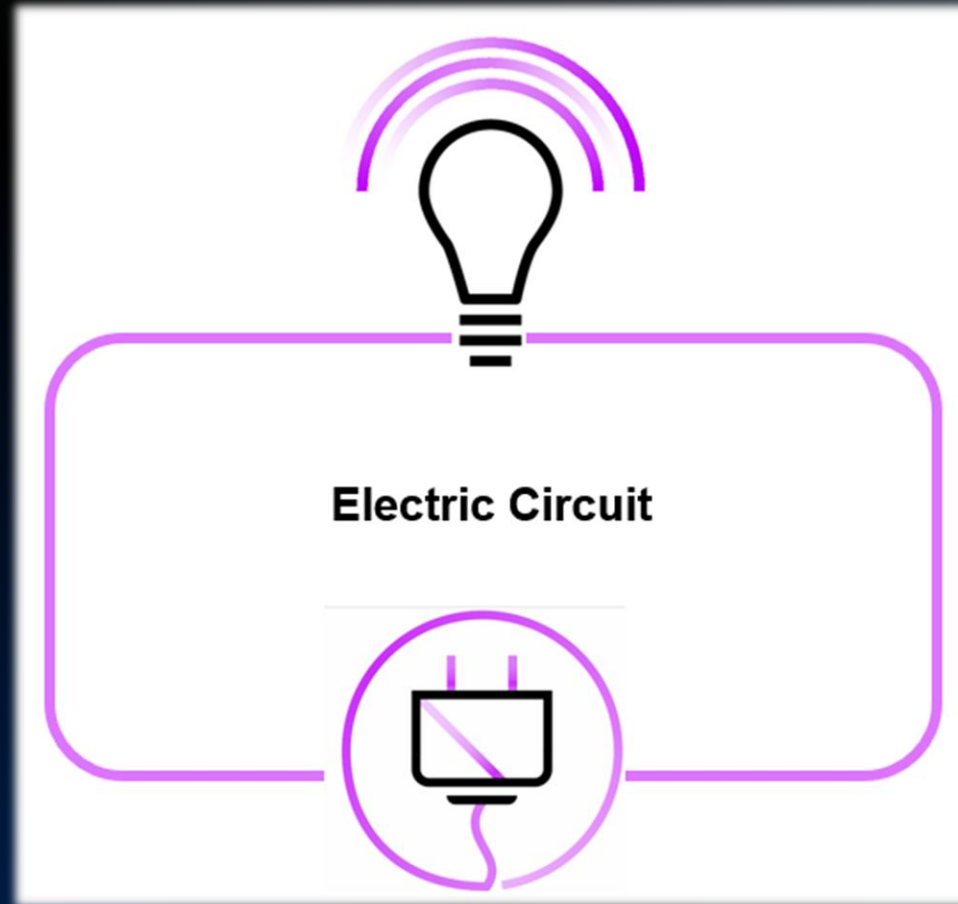
WiggleBot Activity

Work through the steps of the Engineering Design Process to complete an Engineering Challenge

The following slides walk through the process to build a WiggleBot

Background Information

Build a Circuit



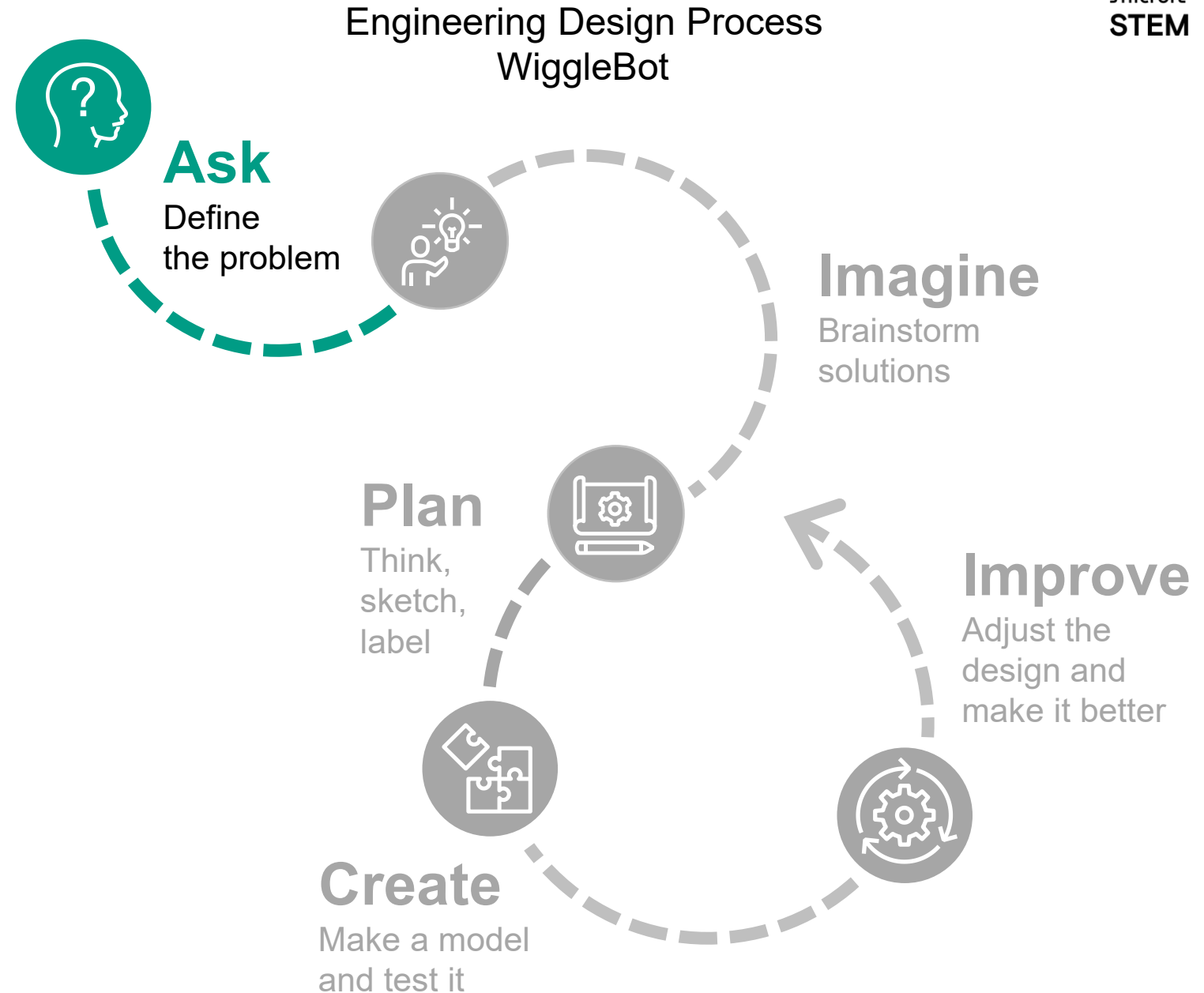
Ask

Clearly define the WiggleBot challenge to be sure everyone on the team has consistent understanding

Talk with your team about how to make the best WiggleBot

- What are the requirements?
- What are the limitations?

Ask questions!



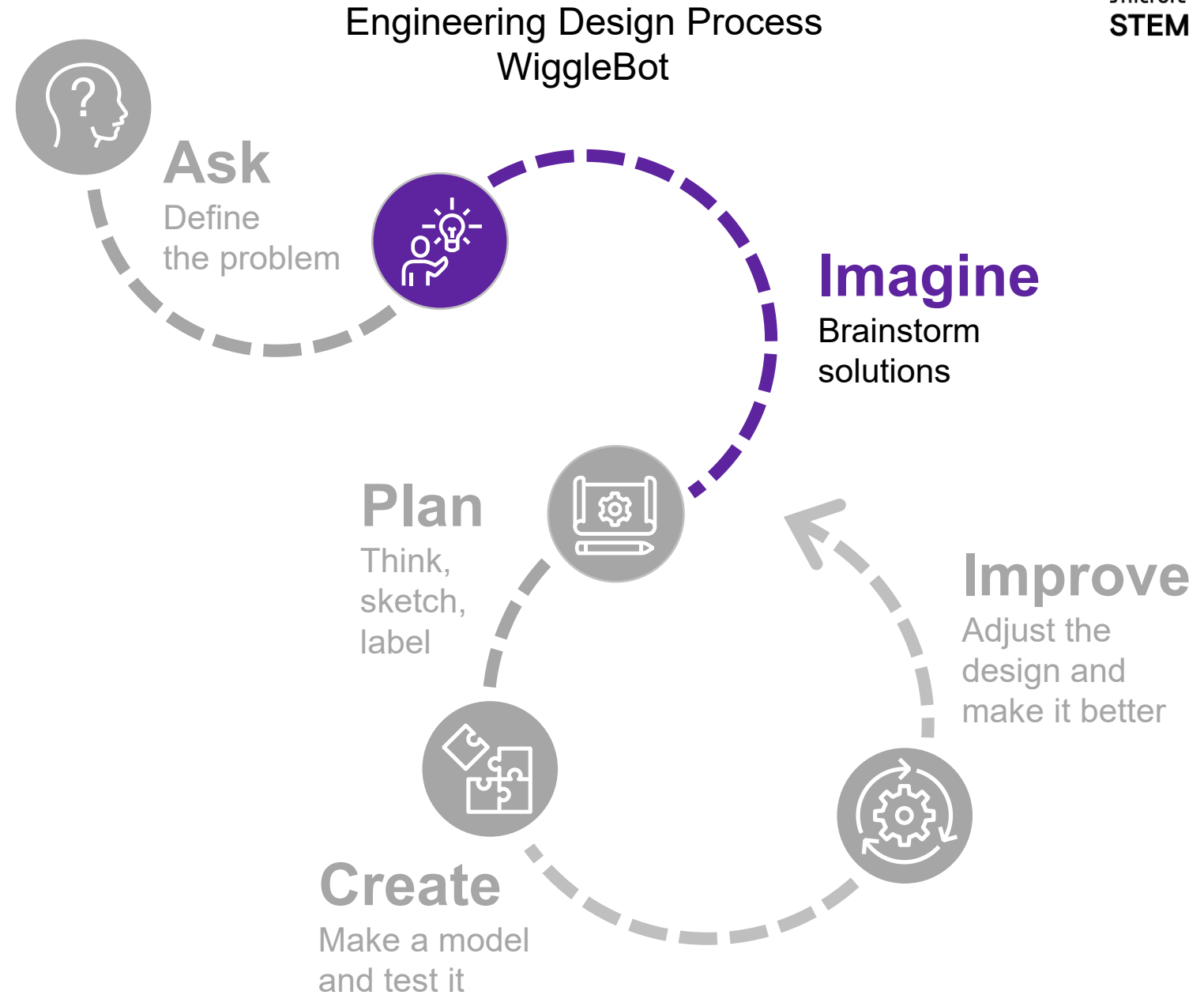
Imagine

Brainstorm Ideas

- What are some crazy ideas to create a WiggleBot?
- What are some items that wiggle or vibrate?

Talk about all ideas with all members of the team and create innovative solutions

DO NOT START TO BUILD YET!



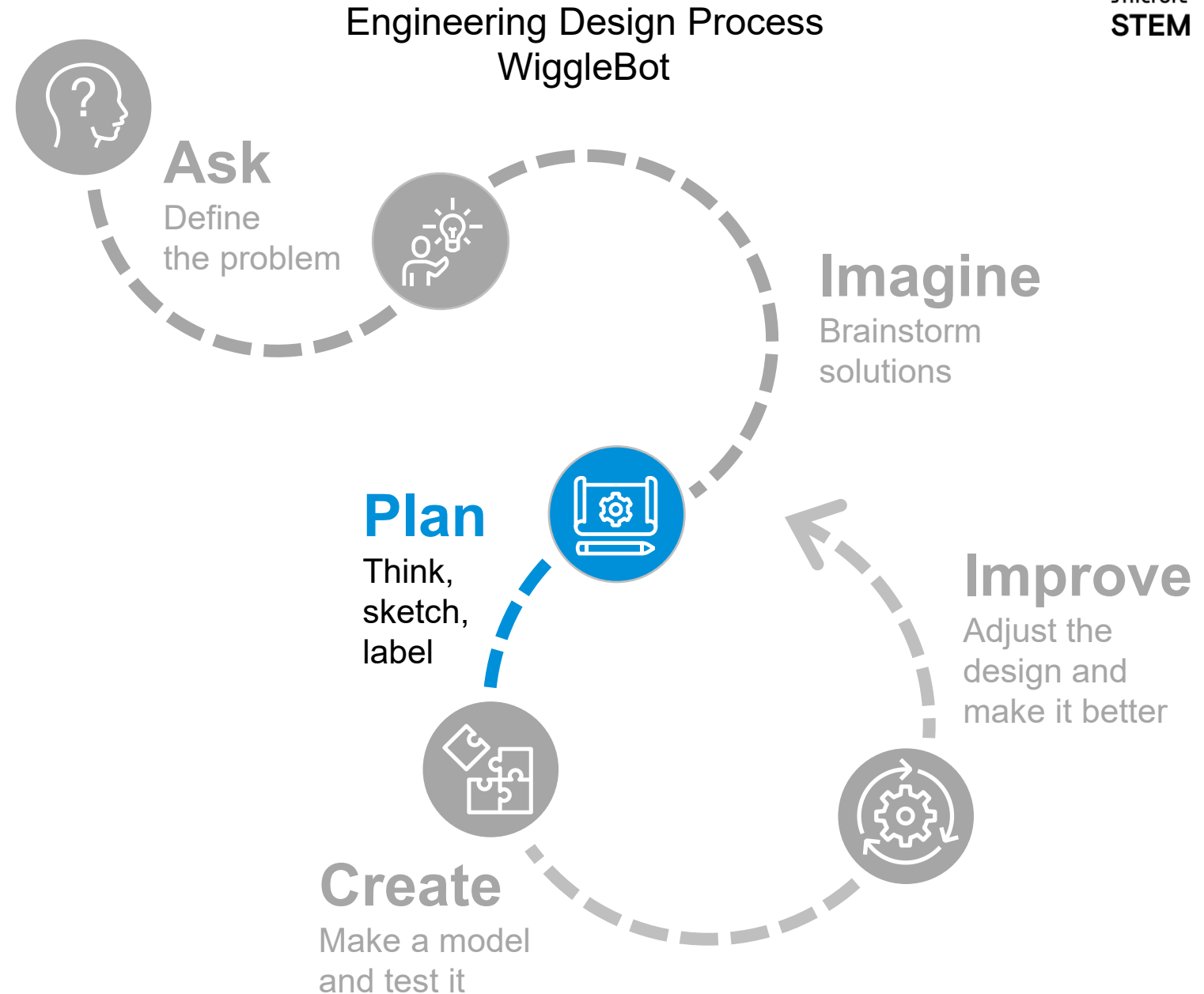
Plan

Think about how to start

Take time to sketch diagrams of the best possible solutions & list how materials will be best used

- What did you learn from your team's first WiggleBot?
- Could a few ideas be combined for the final solution?

Select one solution to build



Create

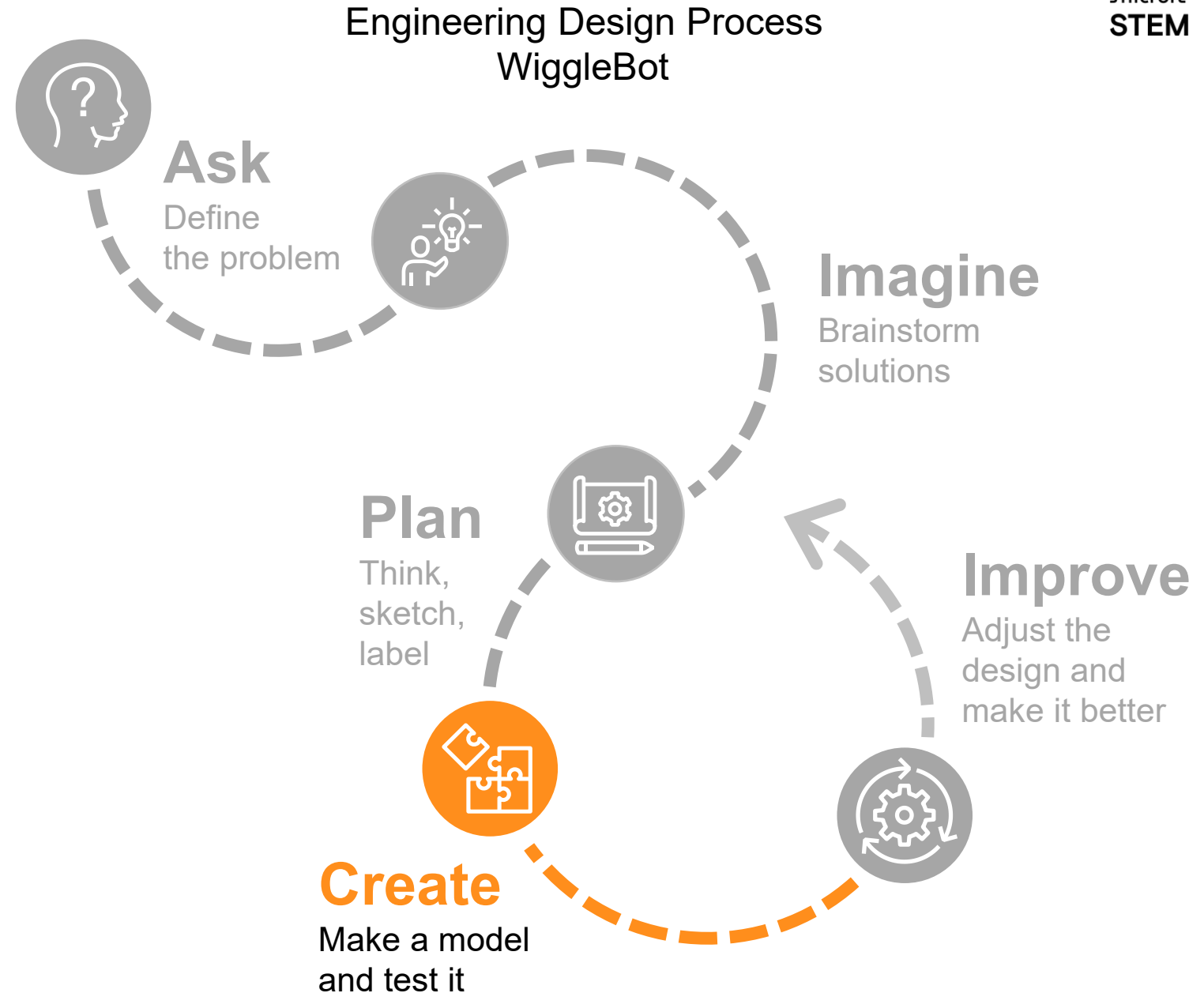
Time to build a WiggleBot

Work as a team so everyone participates / contributes

Test the model / solution

Analyze the results

- Does the model / solution meet the challenge?
- What could be done different?



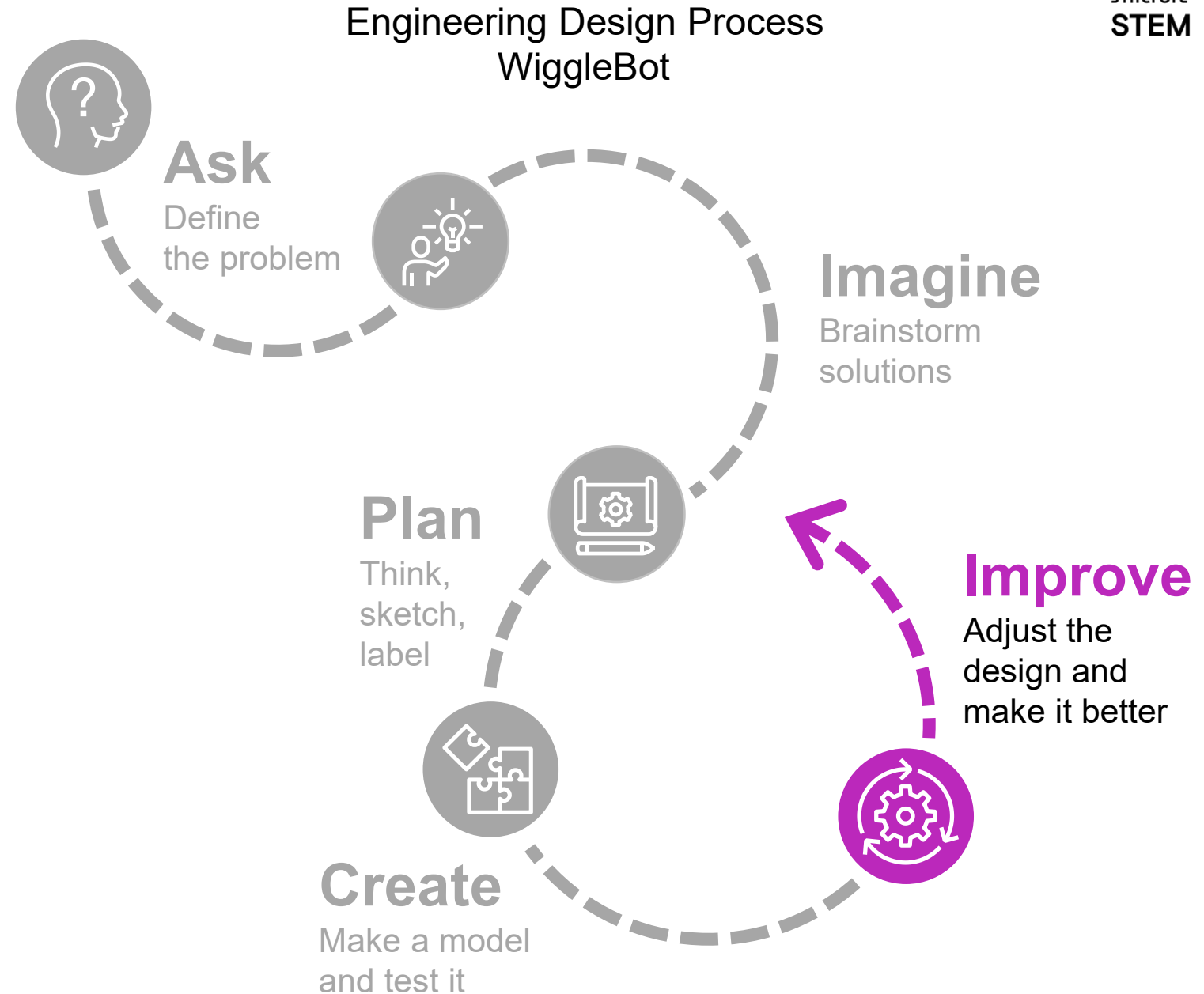
Improve

Make your WiggleBot better

- What changes can be made to this WiggleBot to make it better?

Learn from the team experience

- Revisit one of your team's original brainstormed ideas to make the WiggleBot better
- In a perfect world, what other items or circumstances would you need to make a great WiggleBot?

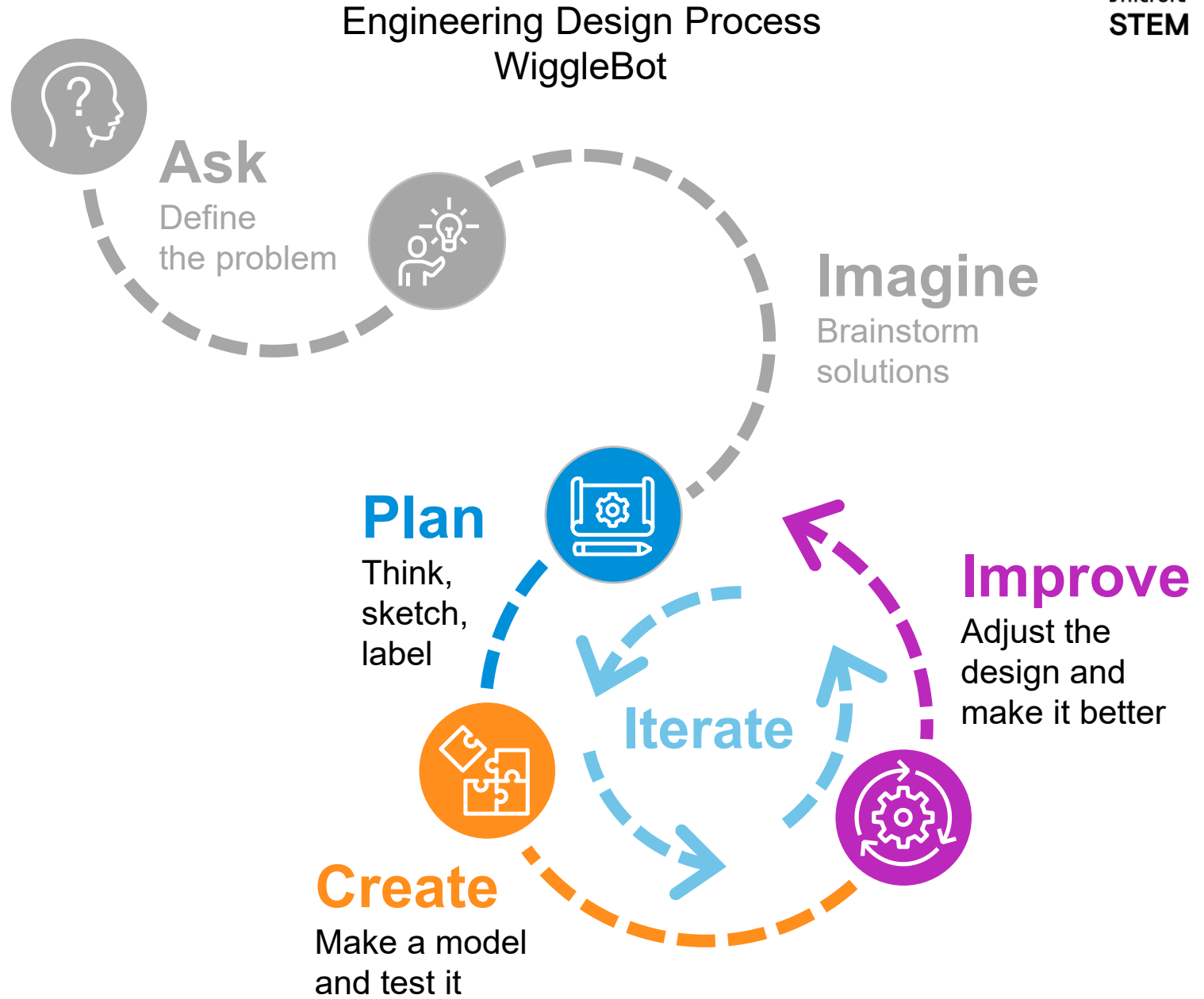


Iterate

Engineers and technology companies will continue to repeat the Plan-Create-Improve stems of the Engineering Design Process

- Is there more information needed about the problem?

Create a new model or improve on original model to create a better solution to the problem



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