AI at Meta

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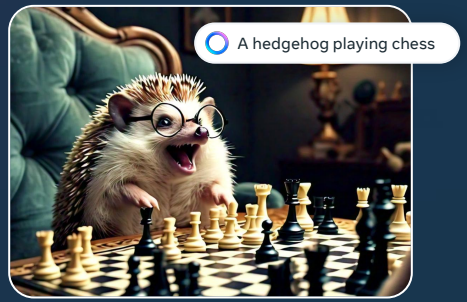
Meta

Artificial intelligence (AI) is having quite a moment

Large language models (LLMs)



Text-to-image generation

AI-enabled creation tools

+173 %

Conversation topic growth on Instagram

Source: Meta for Business. '[Culture Rising: 2023 Trends Report](), ' 2023.

AI is not new

1956

AI 1.0

‘The Logic Theorist’ is developed.

1966

The first chatbot, ELIZA, is tested at MIT.

1997

AI beats Garry Kasparov in chess.

PRESENT

AI 2.0

AI art generators and text-based tools are launched with much fanfare.

FUTURE

Meta

What is AI?

At Meta, we talk about AI as the capability of computer systems to perform tasks that normally require human intelligence, such as visual perception, speech recognition, content understanding and translation between languages.

Classic AI
performs functions on *existing* data

Generative AI
creates *new* data

The benefits of an open approach

Boosting innovation through greater access and control

- Lower compute costs
- More customisable and predictable
- More control over data access

Driving safety, security, and accountability

- “Look under the hood”
- Lessons from cybersecurity

Open sourcing is advantageous to Meta as a company

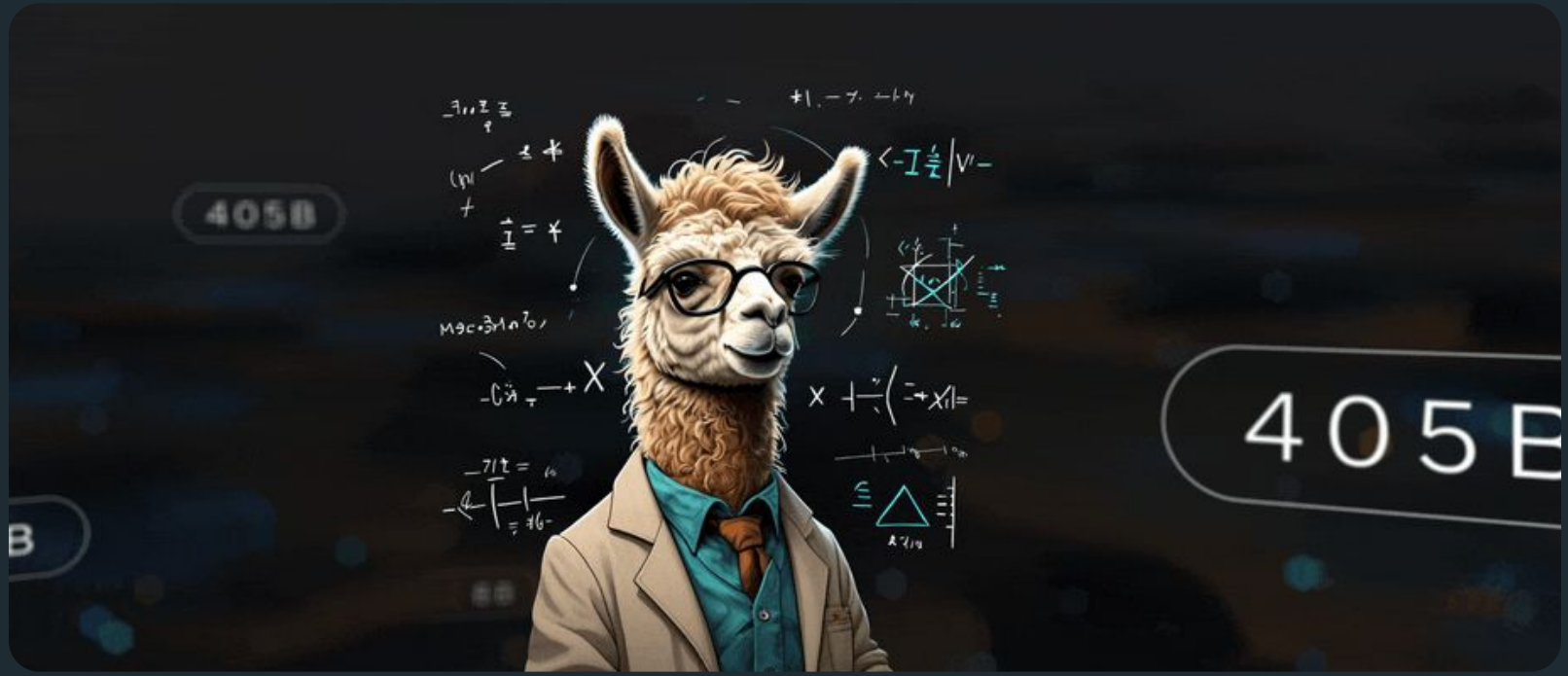
With the community developing models that shape new standards and accelerating innovation of our products

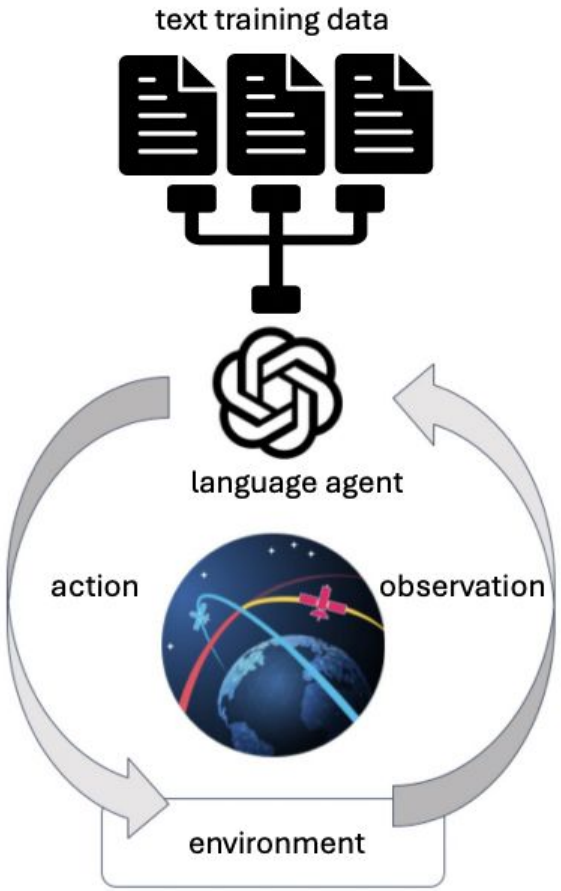
Enhancing safety, security, and operational efficiency of our models

Recruiting top-tier professionals

Preserving and increasing our ability to innovate

Llama family of models





Thrust vector to be applied at this time:
[0.035448, 0.018499, -0.112130].

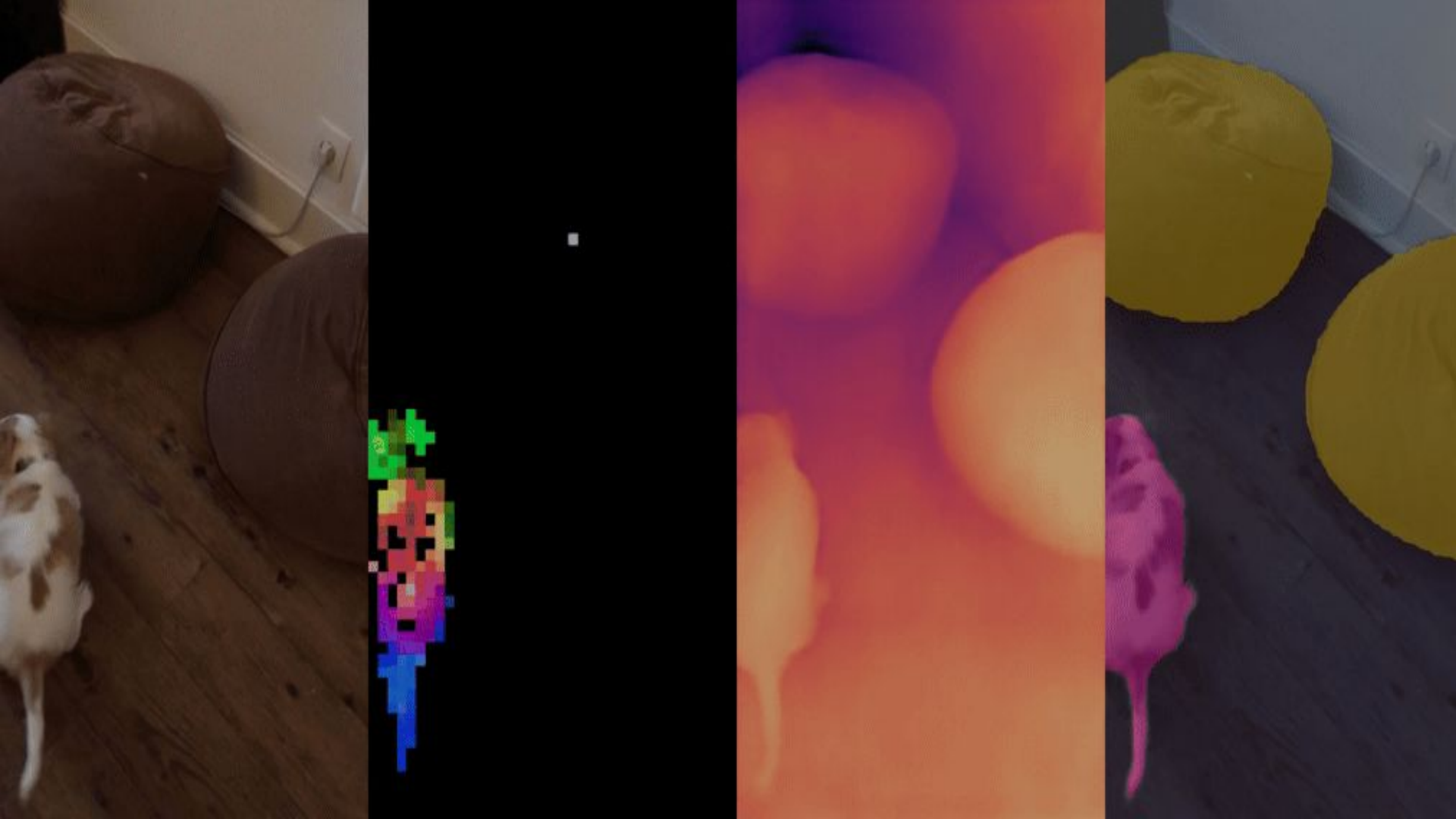
You are an AI navigation system for a spacecraft. Your task is to guide the spacecraft from its current position to a specified destination without any time constraints (but within a single revolution) while minimizing the integral of the thrust squared.

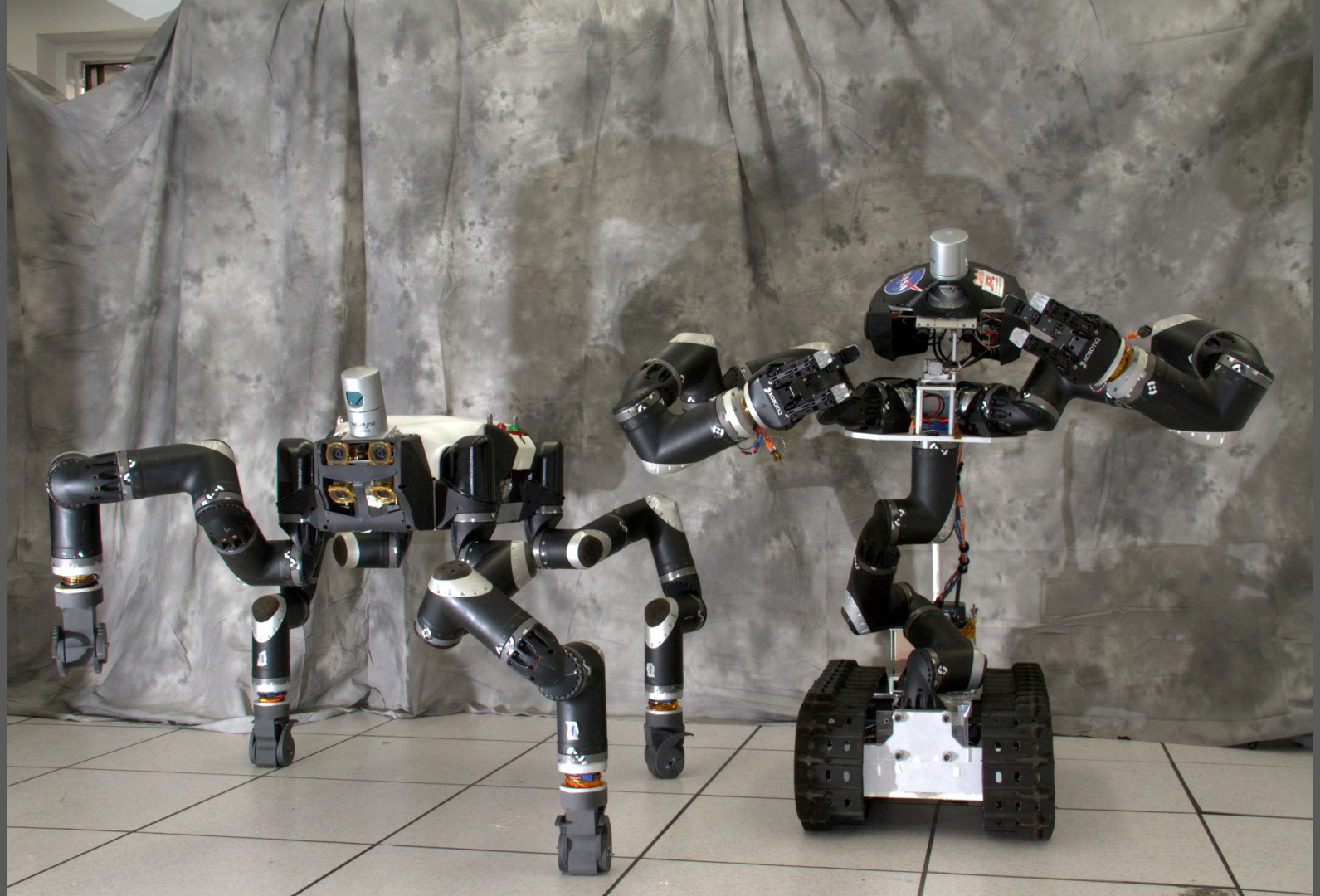
Input:
- Current spacecraft state: 3D position [0.703740, -1.317800, -0.077790] and velocity [0.823310, 0.088951, 0.119410]
- Destination coordinates [2.000000, 0.000000, 0.000000] with velocity [0.000000, 0.707107, 0.000000]

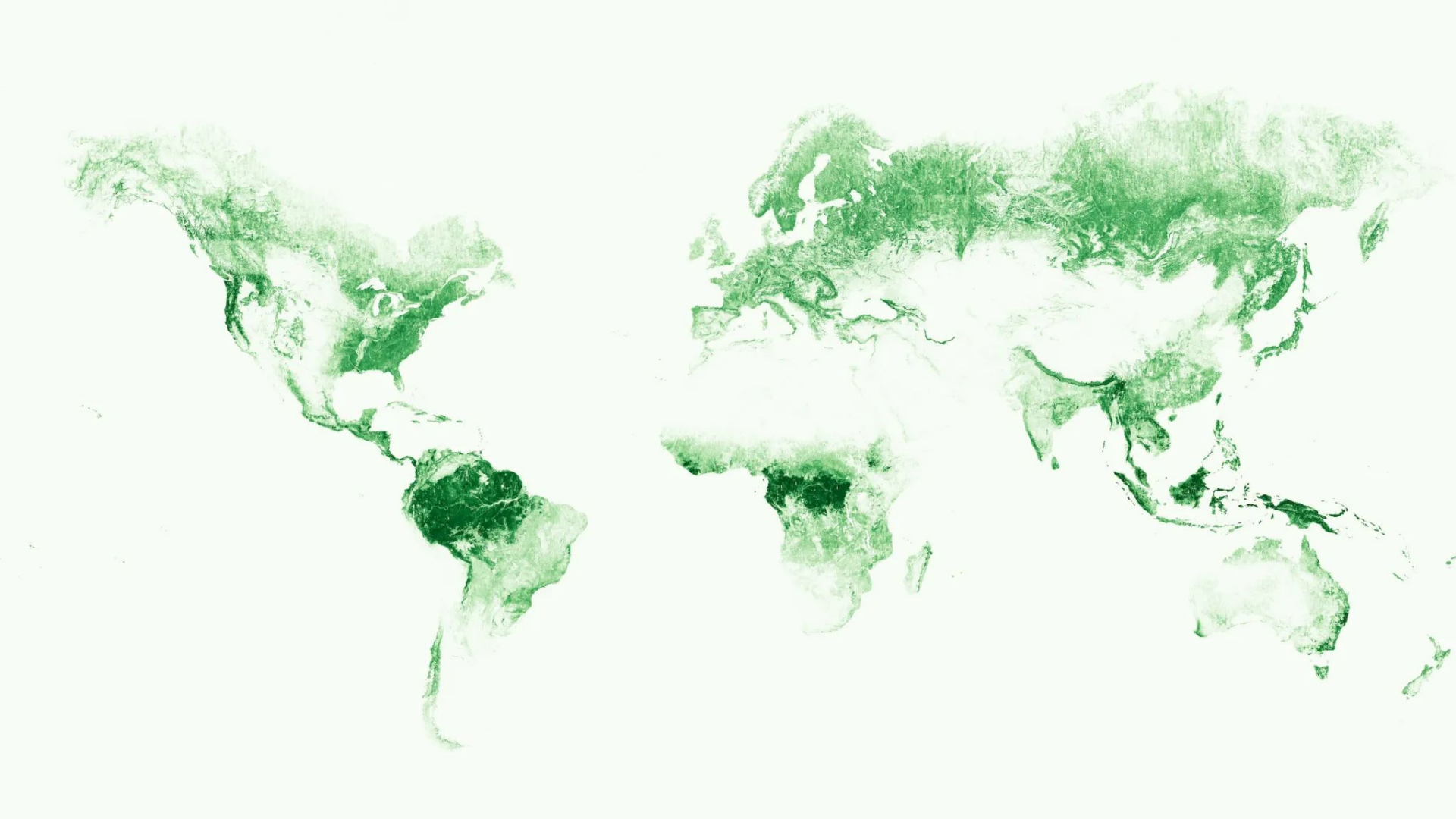
The output should be a series of 3D thrust vectors [Tx, Ty, Tz] to be applied at specific times to navigate the spacecraft from its current position to the destination while minimizing the integral of the thrust squared.

Constraints:
- The spacecrafts motion is governed by Newtonian mechanics in a vacuum.
- The spacecraft has a limited amount of fuel, so the integral of the thrust squared must be minimized to conserve fuel.

Thrust vector to be applied at this time: [0.035448, 0.018499, -0.112130].

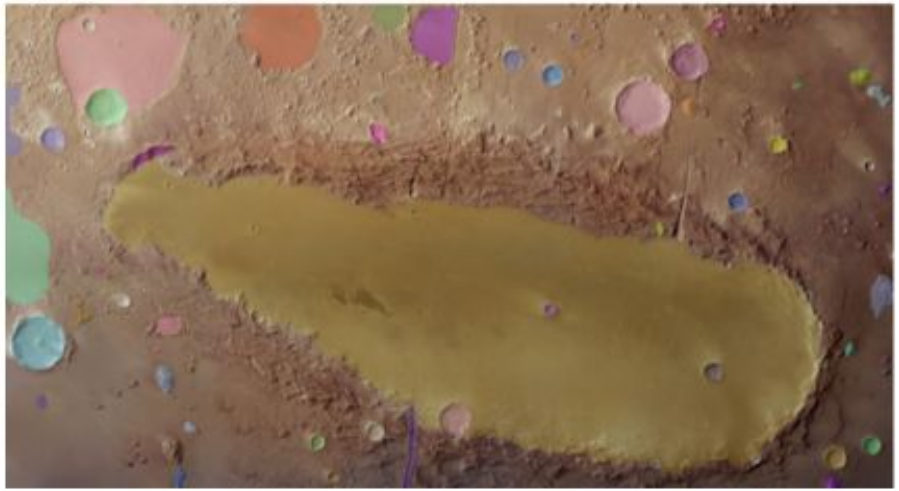






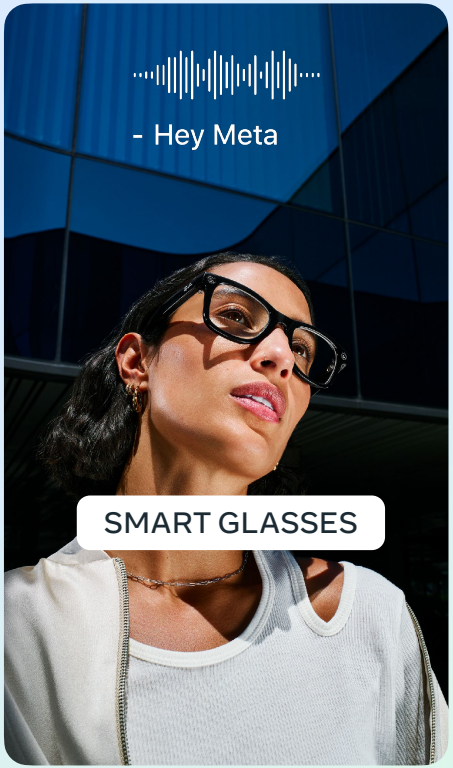
A) Input image

B) Segmented image using SAM



AI is foundational both to Meta technologies today –

– and also to our future plans for generative AI products and the metaverse for tomorrow.



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