

ASTROPAL – THE AI SPACE COMPANION FOR ASTRONAUT WELLNESS

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SPACE CAN BE LONELY



ASTRONAUTS ARE AWAY FROM
LOVED ONES FOR MONTHS
OR YEARS



ISOLATION AND STRESS ARE
COMMON DURING LONG
MISSIONS



MENTAL HEALTH SUPPORT IS
CRITICAL, NOT OPTIONAL

WHAT IS ASTROPAL?



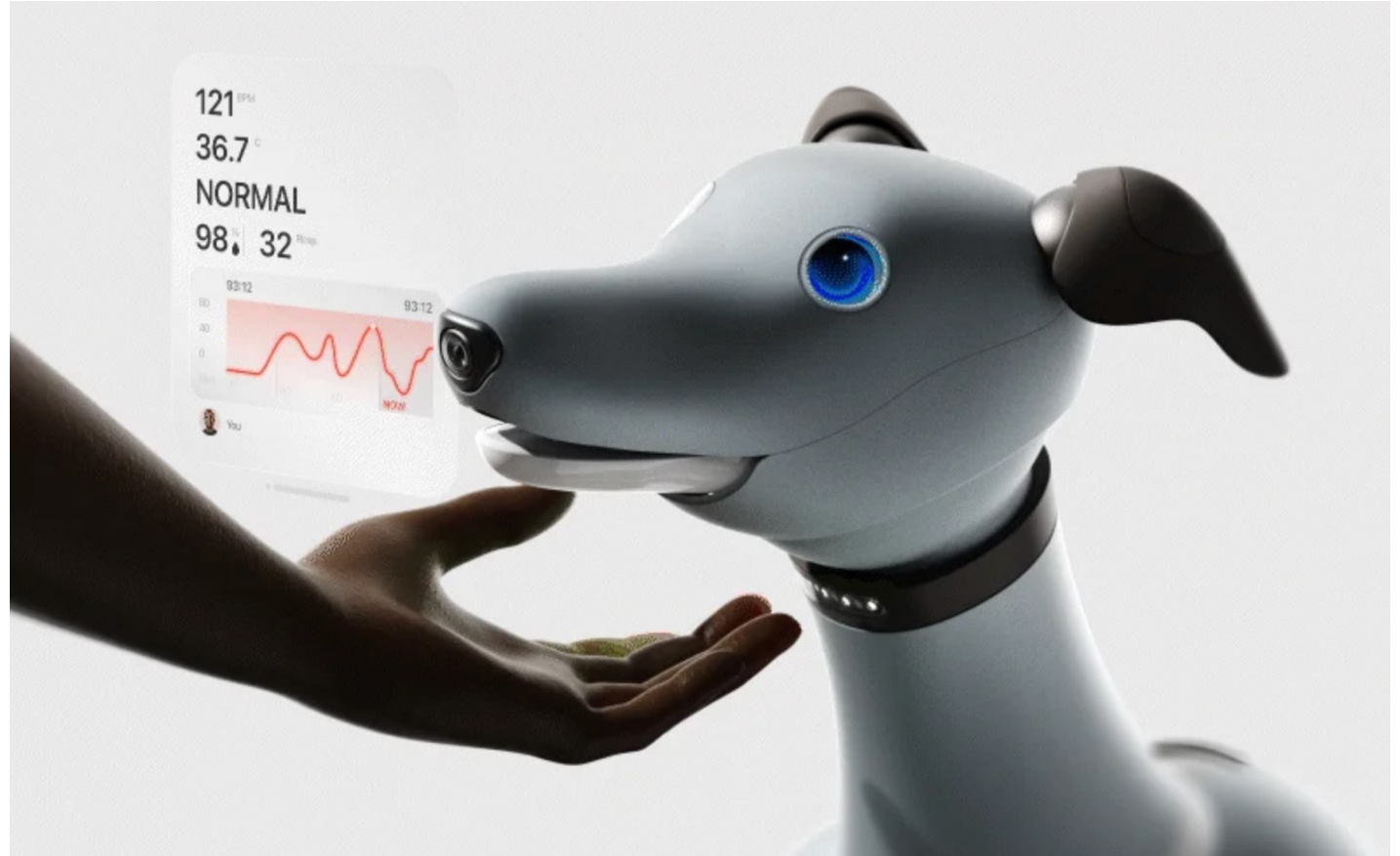
An AI “pet” built to support astronaut emotional health



Can talk, play music, share news, and crack jokes



Feels like a friend — not just a tool



WHAT ASTROPAL CAN DO



Detect moods through voice tone



Daily emotional check-ins



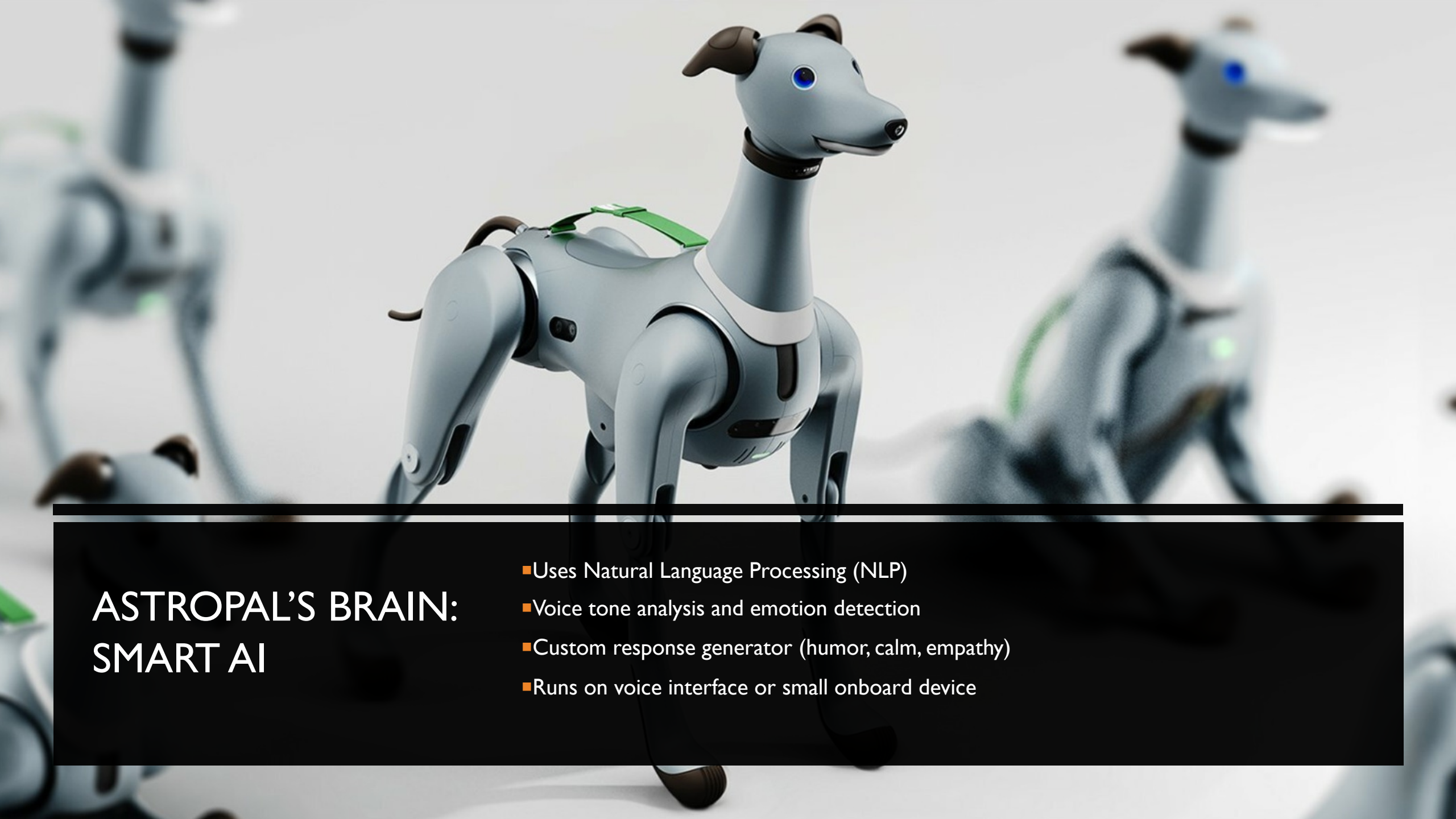
Personalized conversations



Reminders, home messages, and fun facts



Music, jokes, or even trivia games



ASTROPAL'S BRAIN: SMART AI

- Uses Natural Language Processing (NLP)
- Voice tone analysis and emotion detection
- Custom response generator (humor, calm, empathy)
- Runs on voice interface or small onboard device



Simulate long missions
(like Mars training labs)



Compare astronaut mood
with vs. without AstroPal



Surveys + mood tracking
over time



Update responses based
on user feedback

TESTING ASTROPAL ON EARTH

MAKING SPACE FEEL A LITTLE MORE LIKE HOME

- Supports emotional well-being in space
- Adds comfort, fun, and connection
- Could help in other places too: hospitals, submarines, remote jobs



WORK CITED:

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