

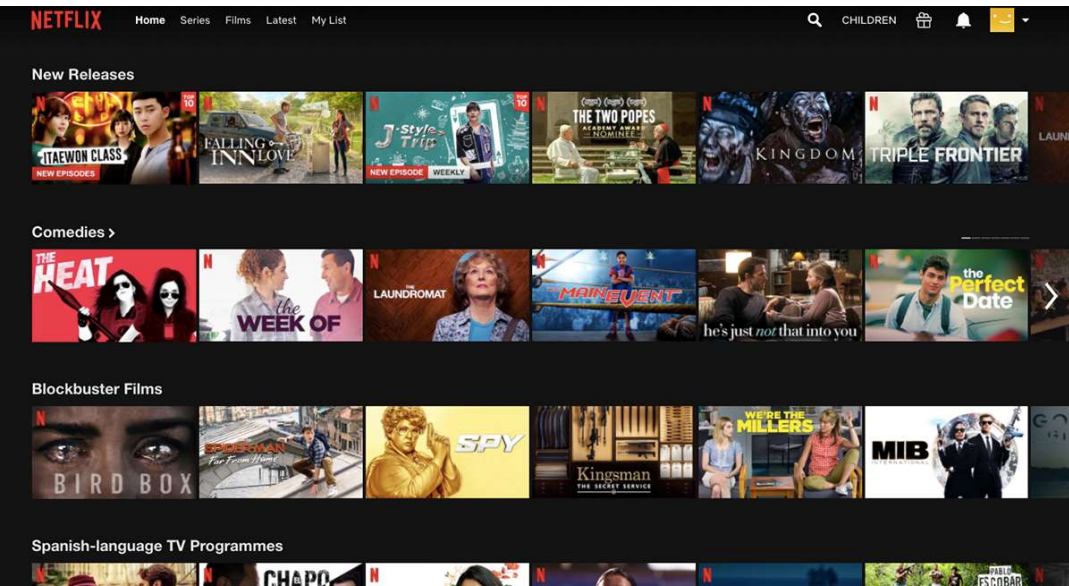
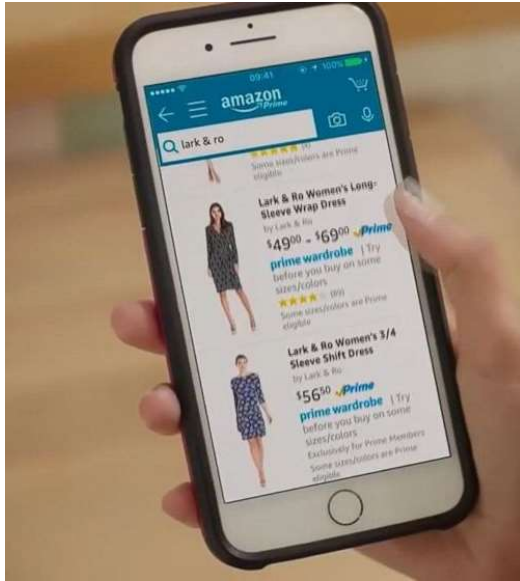
Are You Having Success with Machine Learning?

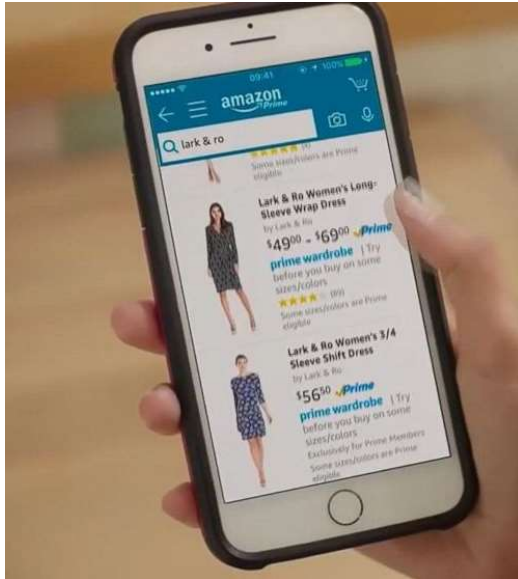
Michael Schmid

Massachusetts Institute of Technology

Group for System Safety and Cybersecurity

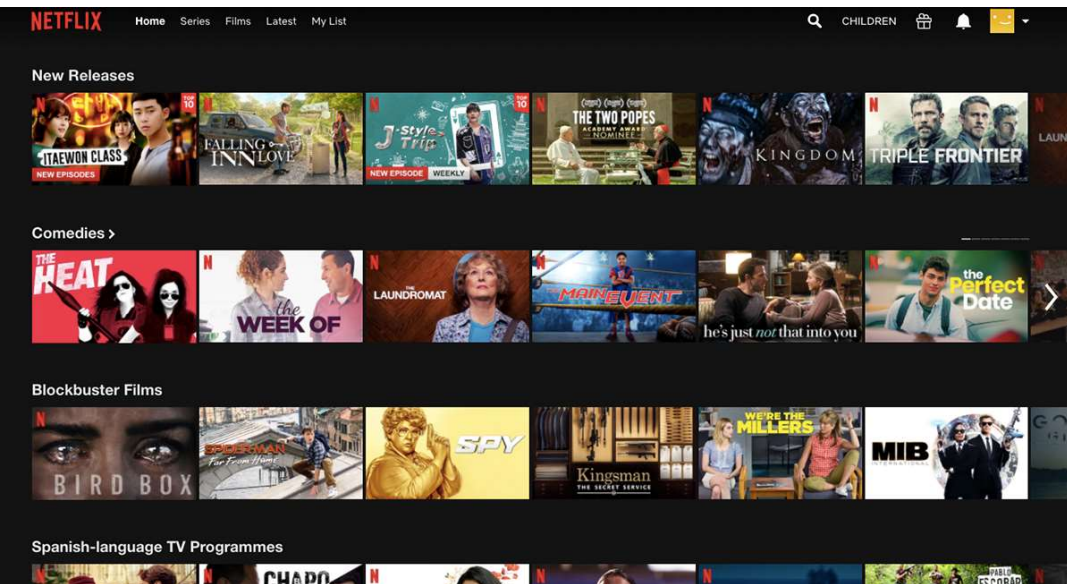
June 29, 2021





Current ML Applications

- Product Recommendations
- Personalized Marketing
- Social Media
- Search Engines
- Chatbots
- ...



Safety-Critical Applications



Safety-Critical Applications





Safety-Critical Applications





Food Delivery



Surveillance



Healthcare

Safety-Critical Applications



Autonomous Cars



Law Enforcement



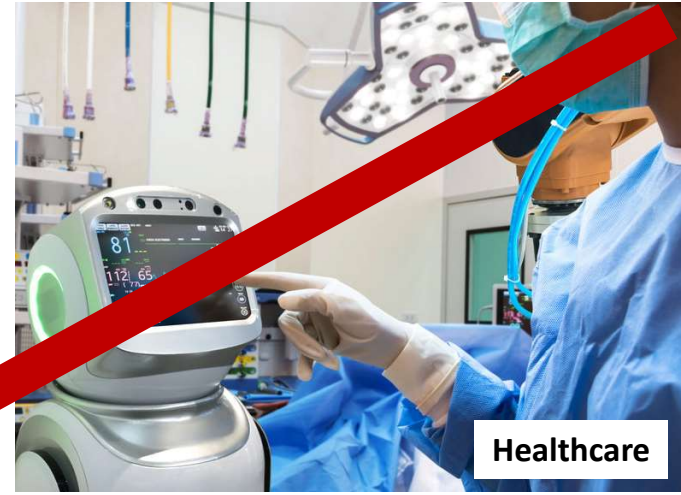
Maintenance



Food Delivery



Surveillance



Healthcare

Safety-Critical Applications



Autonomous Cars



Law Enforcement



Maintenance

News

IBM Watson recommended 'unsafe' cancer treatments, according to internal documents

The Watson AI isn't ready to replace physicians just yet.



Tesla kills its driver ...

... [unreadable text] ...



Apps Send Residents Into Wildfires ...

... [unreadable text] ...

Robot runs over toddler ...

Uber abandons its self-driving car dreams ...

Food Delivery

Safety

Autonomous

Healthcare

Insurance

Maintenance

Microsoft

Let`s fix this!

ML Model

**“change
hyperparameters”**

ML Model

**“change
hyperparameters”**

**“Improve data
quality”**

ML Model

**“change
hyperparameters”**

**“Improve data
quality”**

ML Model

“try ...”

Take a New Approach!

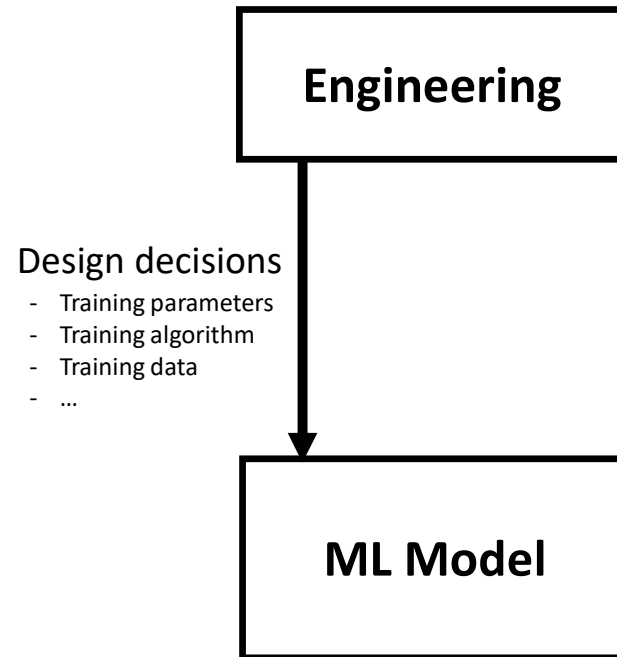
ML Model

Take a New Approach!

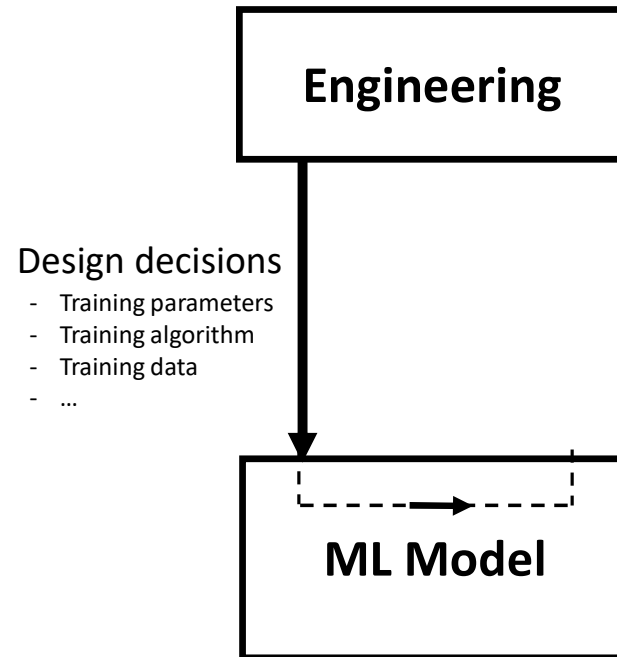
Engineering

ML Model

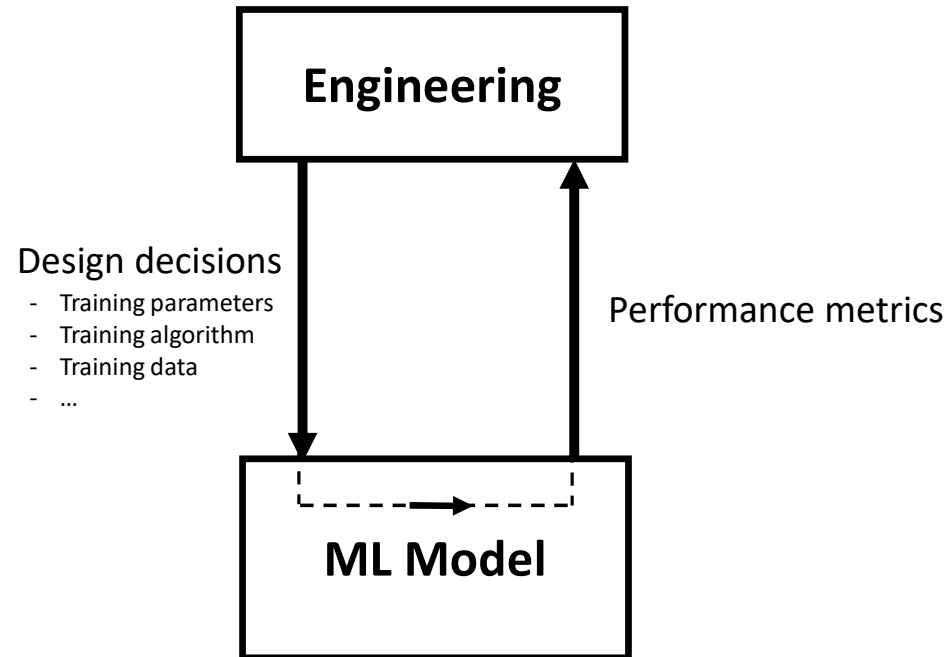
Take a New Approach!



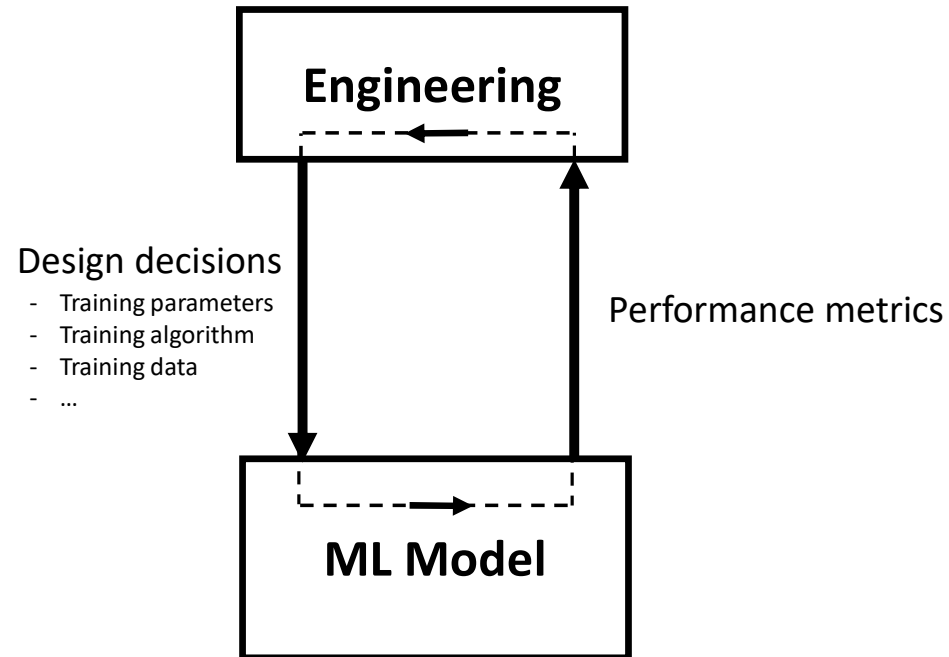
Take a New Approach!



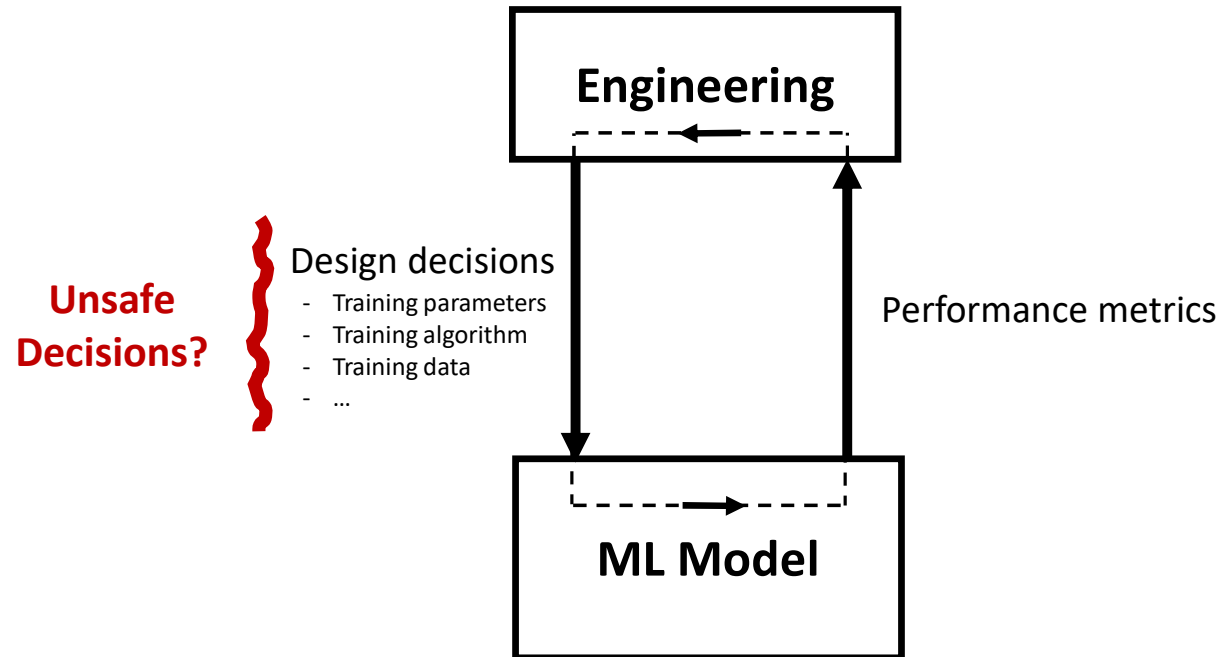
Take a New Approach!



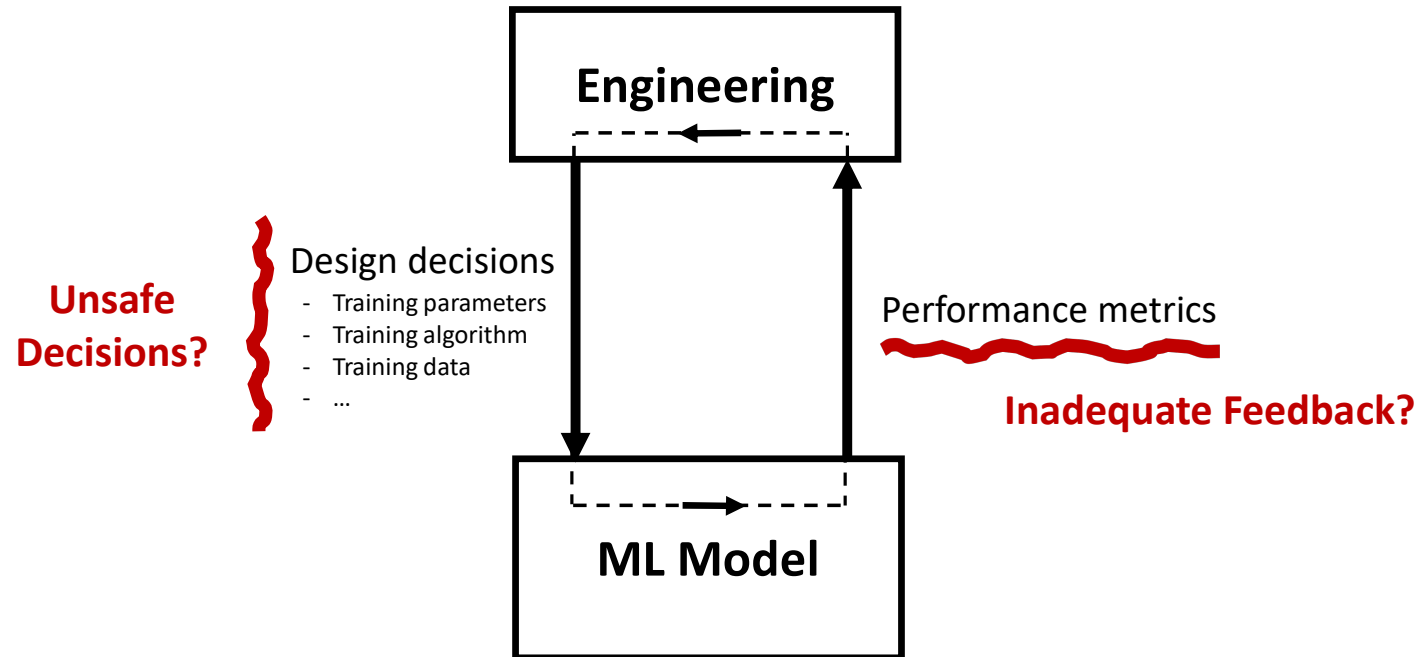
Take a New Approach!



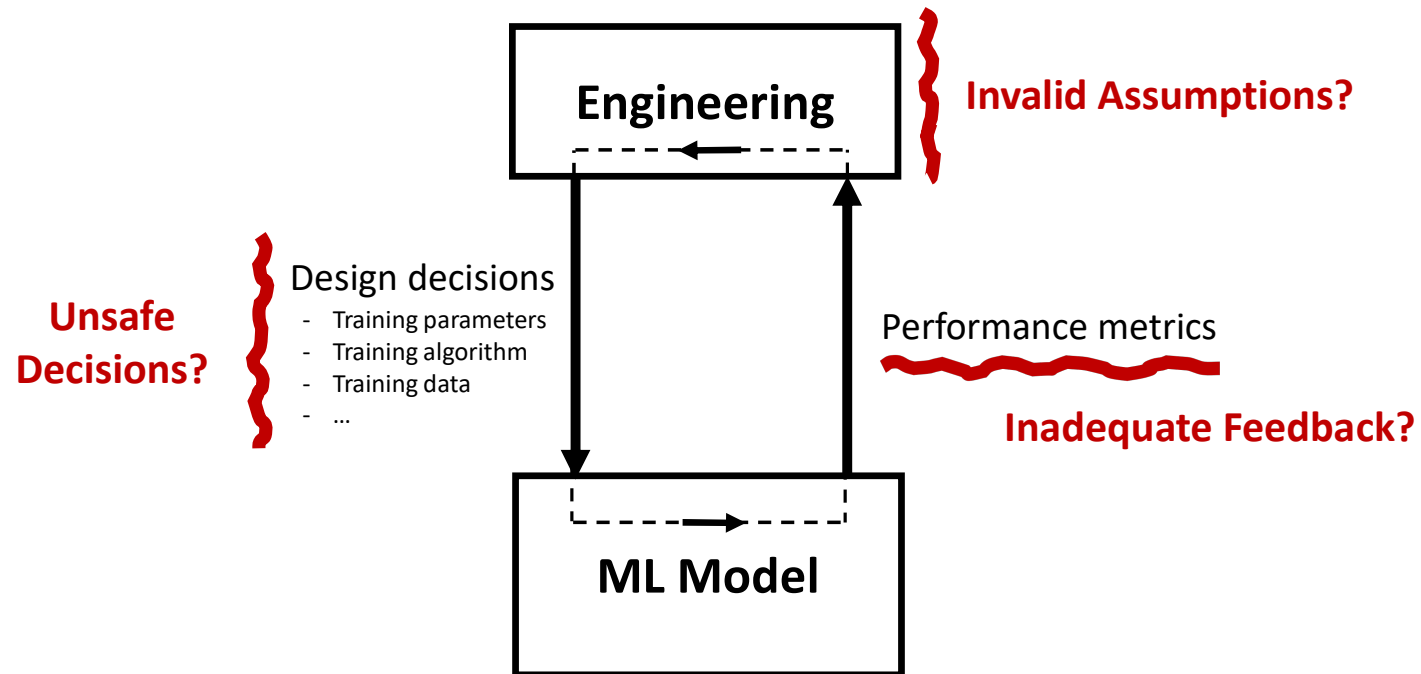
Take a New Approach!

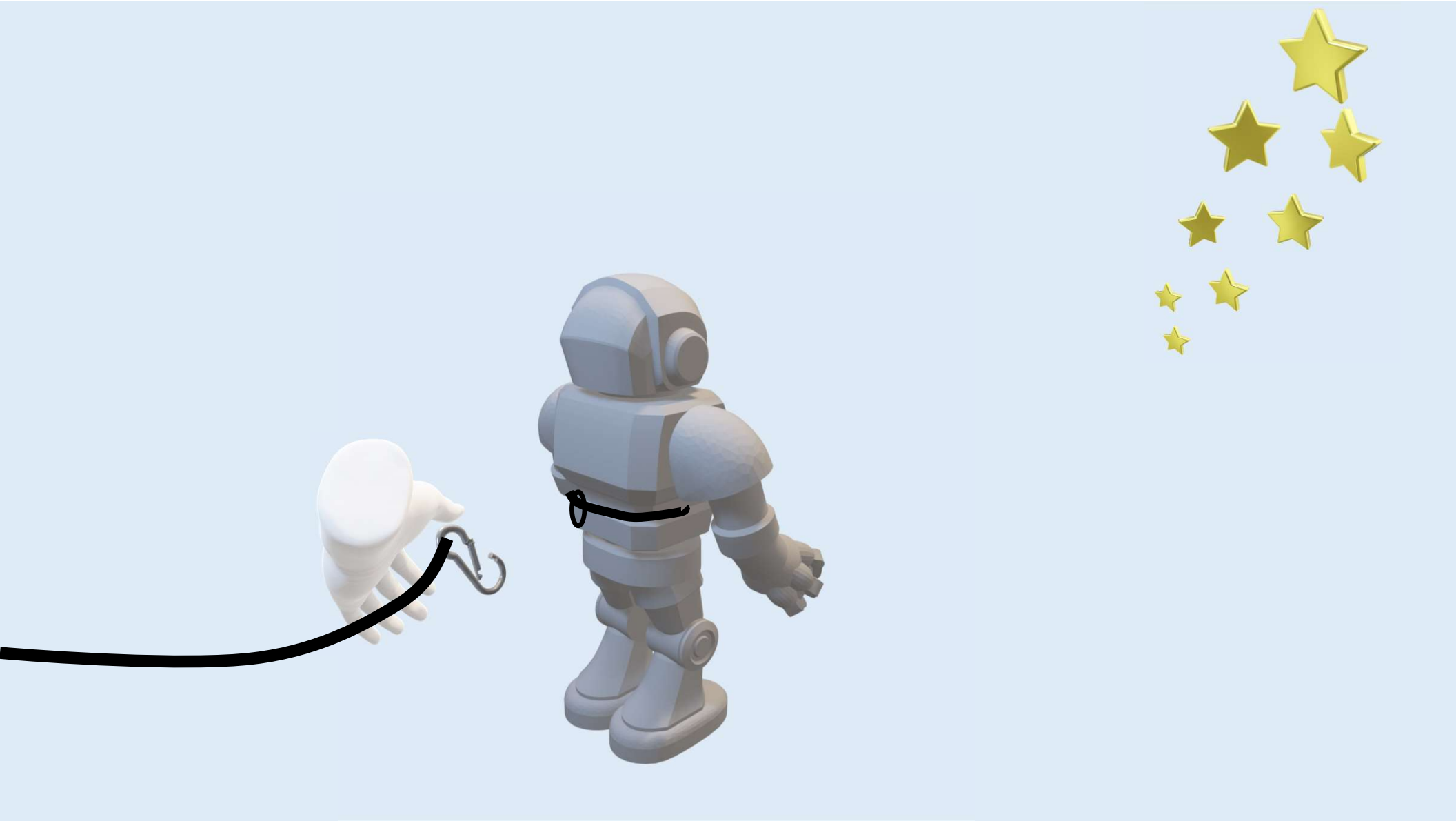


Take a New Approach!



Take a New Approach!





You think this could help You?

Let`s talk!

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