# Article information:

One giant leap for the mini cheetah | MIT News | Massachusetts Institute of Technology
<https://news.mit.edu/2021/one-giant-leap-mini-cheetah-1020>

# Article summary:

1. Researchers at MIT have developed a two-part control system that improves the speed and agility of legged robots as they jump across gaps in terrain, without requiring the terrain to be mapped in advance. The system uses a camera mounted on the front of the robot to capture depth images of the upcoming terrain, which are fed to a high-level controller along with information about the state of the robot's body.

2. The researchers used reinforcement learning to train the high-level controller, conducting simulations of the robot running across hundreds of different discontinuous terrains and rewarding it for successful crossings. They then tested their control scheme using the MIT mini cheetah, which successfully crossed 90% of terrains.

3. While the researchers were able to demonstrate that their control scheme works in a laboratory, they still have a long way to go before they can deploy it in the real world. They hope to mount a more powerful computer to the robot so it can do all its computation on board, improve its state estimator to eliminate the need for motion capture systems, and enhance both low-level and high-level controllers.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

该文章主要介绍了一种新的控制系统，可以提高四足机器人在不规则地形上跨越障碍物的速度和敏捷性。然而，该文章存在以下问题：

1. 偏袒：该文章只报道了研究团队的观点和成果，并没有探讨其他可能存在的问题或反驳意见。

2. 片面报道：该文章只关注了技术方面的进展，而没有考虑到可能存在的风险或道德问题。例如，在紧急情况下使用机器人进行救援行动是否会对人类工作岗位产生影响？

3. 缺失考虑点：该文章没有涉及到机器人在不同环境下的表现如何，例如在恶劣天气条件下或者在复杂城市环境中。

4. 未探索反驳：该文章没有探讨其他学者对这项技术的看法或者可能存在的争议点。

5. 宣传内容：该文章似乎更像是一篇宣传稿件，强调了研究团队所取得的成果，而忽略了其他可能存在的问题。

因此，需要更全面、客观地报道这项技术，并且需要更多学者参与讨论和评估其潜在影响。

# Topics for further research:

* Other perspectives on the technology
* Potential risks and ethical considerations
* Performance of the robot in different environments
* Criticisms or controversies surrounding the technology
* Balanced reporting of the technology's benefits and drawbacks
* Input from a diverse range of experts and stakeholders.

# Report location:

<https://www.fullpicture.app/item/84e43e3f2720b4fb9a87d0e2d06c3af8>