

MiniCPM-V

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Demo Environment

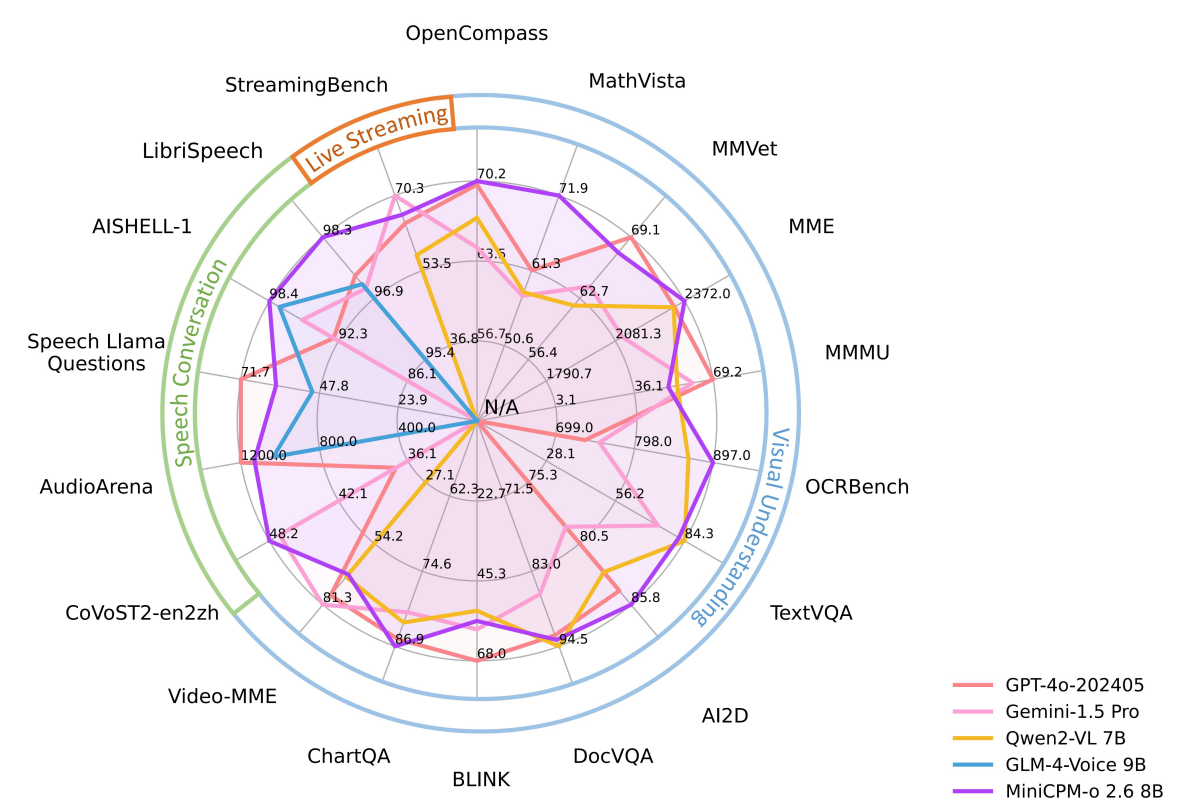
Development Boards: Jetson Orin, RDK X5, Raspberry Pi 5 series motherboards

Note: This model cannot run on Jetson Orin Nano 4GB, Raspberry Pi 5 2GB/4GB, or RDK X5 4GB versions due to performance limitations. **

1. Model Size

Model	Size
minicpm-v:8b	5.5GB

2. Performance



3. Using MiniCPM-V

3.1 Running MiniCPM-V

If the system does not have a running model, it will automatically pull the TinyLlama 1.1B model and run it:

```
ollama run minicpm-v:8b
```

3.2 Engaging in a Dialogue

```
Tell me a mathematician story
```

Response time depends on hardware configuration; please be patient!

```
>>> Tell me a mathematician story
One famous mathematician, Paul Erdős, was known for his unique approach to
collaboration and problem-solving. He believed that mathematics should be
approached with passion and creativity, rather than as just a set of rules
and formulas.
Erdős would often travel the world in search of new collaborators and
unsolved problems, working on them together in whatever spare time he had
available. His ability to connect with other mathematicians from all over
the globe was unparalleled, and many people credit him for helping to
advance mathematics as a collaborative enterprise rather than just an
academic pursuit.
Perhaps one of his most famous collaborations occurred when Erdős met
Andrew Odlyzko at a conference in Moscow during the Cold War. Despite
their political differences, they worked together on some complex
mathematical problems, leading to several important discoveries and
breakthroughs. Their friendship endured for decades, even surviving
through periods of intense international tension.
Overall, Paul Erdős was known as one of the greatest mathematicians of his
time, but it was his passion for collaboration that truly set him apart
from others in the field.
```

3.3 Visual Functions



```
what do you see in this picture? ../test_pic.png
#Using ":" + image path" in the dialogue allows the model to use its visual
functions to interpret information from the image.
```

```
root@root:~$ ollama run minicpm-v:8b
>>> What do you see in this picture? ../test_pic.png
Added image '../test_pic.png'
This image shows two individuals on a rooftop with buildings and sky
visible. One person is sitting down, looking up at the sky while wearing a
white sleeveless top and shorts, holding what appears to be an empty
bottle of water. Another individual can be seen bending over something
near his feet in the background. The setting seems peaceful and relaxed
under bright sunlight.

>>> Send a message (/? for help)
```

3.4 Ending the Dialogue

Use the shortcut `Ctrl+d` or `/bye` to end the dialogue!

3.5 Chinese Dialogue

For those without a Chinese input method, please refer to the Chinese input method switching tutorial.

Chinese Dialogue:

```
>>> 一个小时是多少分钟？请用中文告诉我
1小时是60分钟。请问还有什么需要我帮忙的吗？

>>> Send a message (/? for help)
```

References

Ollama

Official Website: <https://ollama.com/>

GitHub: <https://github.com/ollama/ollama>

MiniCPM-V

GitHub: <https://github.com/OpenBMB/MiniCPM-o>

Ollama Corresponding Model: <https://ollama.com/library/minicpm-v>