

Team Laia

Spicy Diffusion

How would a physical interface to Stable Diffusion feel like? Let's explore that idea using MIDI controllers!

stability.ai

Stable Diffusion AI Hackathon

lab
lab
ai

**Interfaces makes or
breaks apps.**

But we should adapt interfaces too
us, not us to interfaces.



Touchscreens are great for fast prototyping and many other things. Keyboard and mouse is super precise and fast. But are those the definitive interfaces?

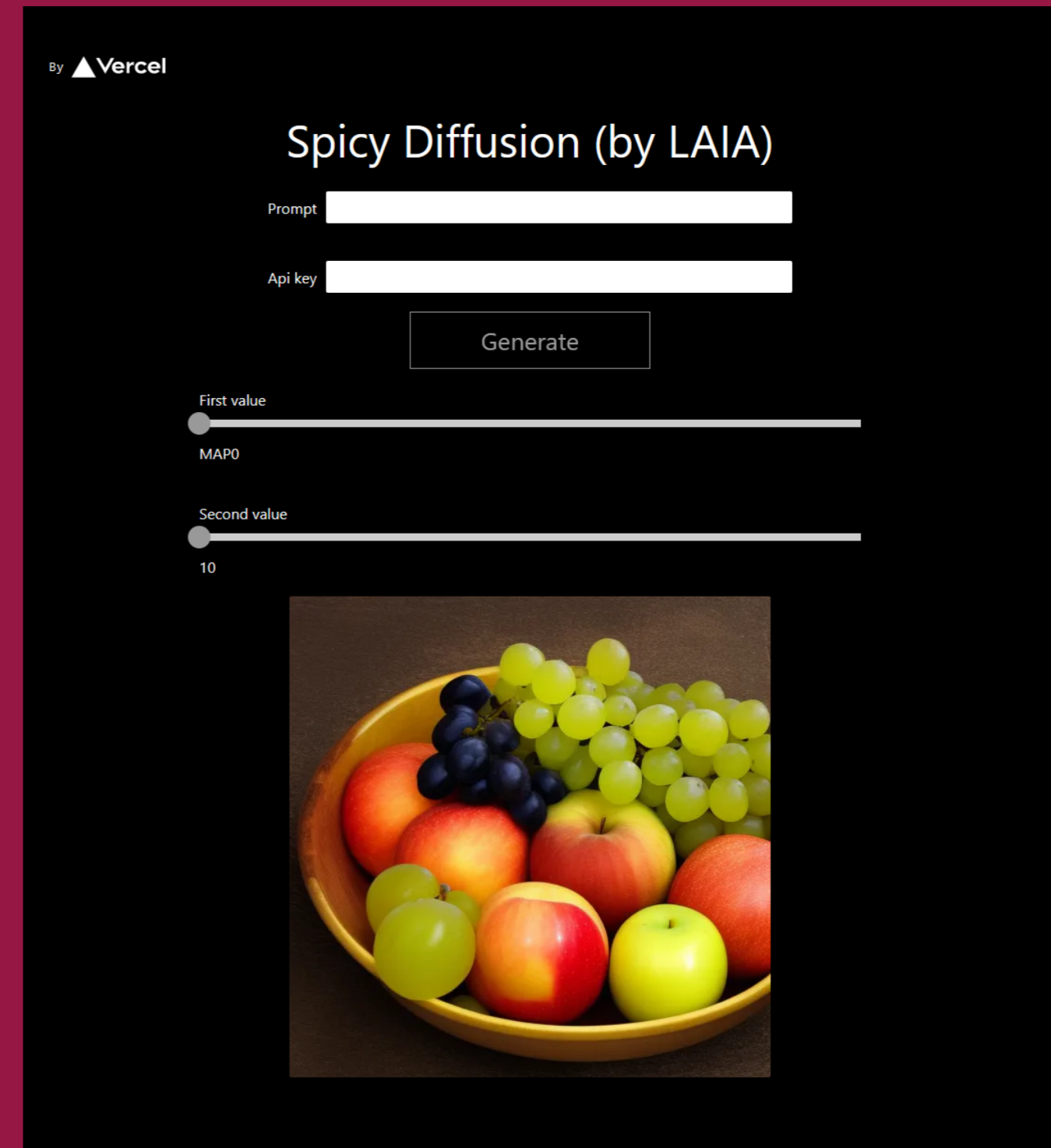


Is it the best we can do to leverage the ultra precise supertools
that are our limbs?

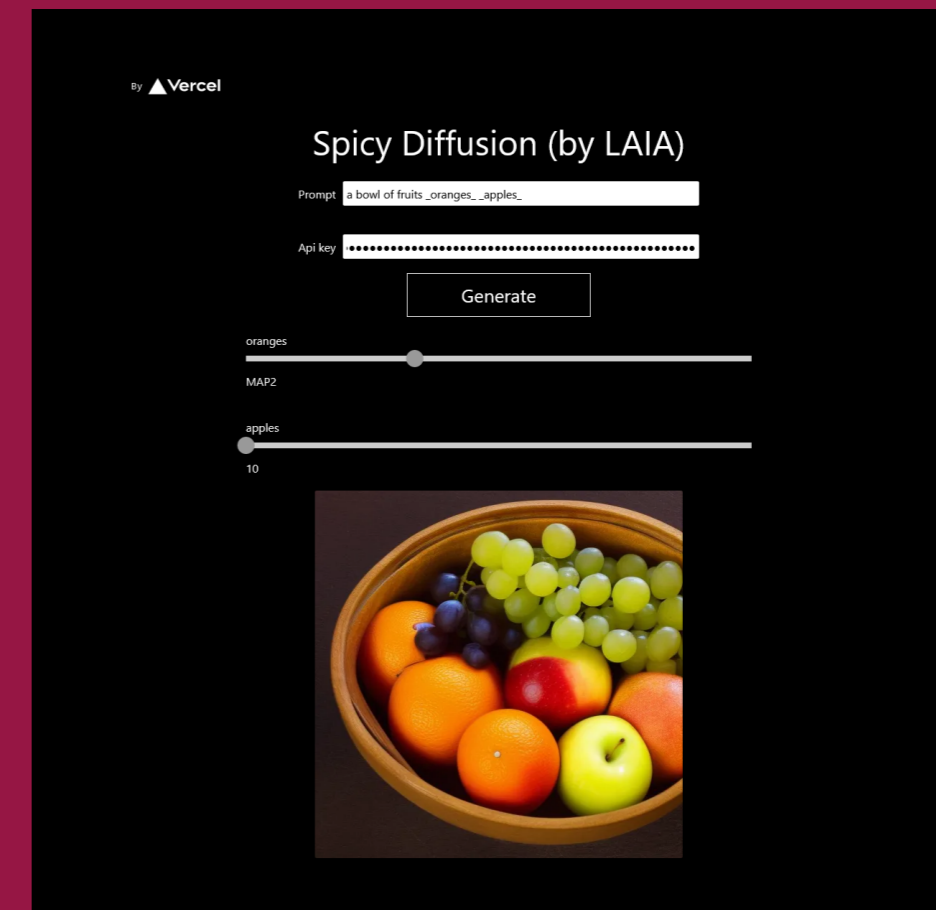
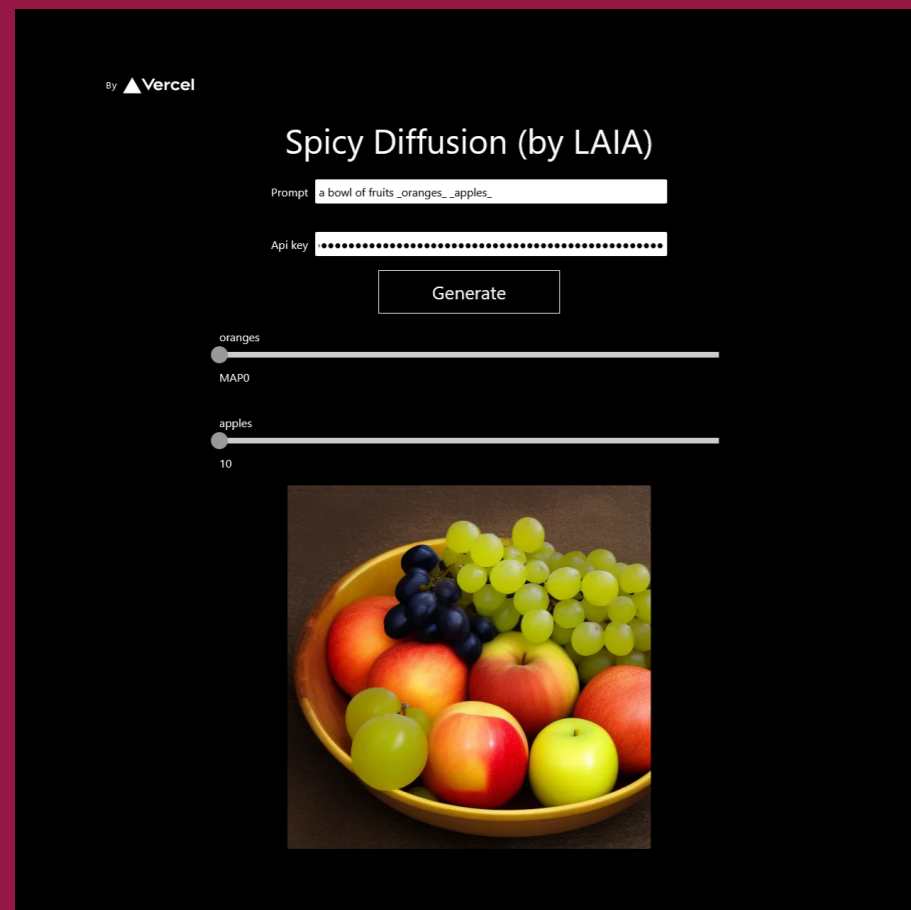
Let's explore the idea of using MIDI controllers to use Stable
Diffusion.



Introducing Spicy Diffusion, a simple webapp that leverages any midi controller in a browser.



0. Map your midi controls to each parameter
1. Write a prompt with 2 keywords surrounded by underscores (ie. *a bow of fruits with grapes, _oranges_ and _apples*)
2. Add your API Key
3. Click Generate
4. Add or subtract the weight of each of the keywords with your MIDI controller or using the UI.



Future plans:

- Smooth interpolation across frames
- Ability to control more parameters besides the prompt
- Explore prompt engineering techniques to generate diversity
- Integrate with future faster versions of SD for live editing
- Audio feedback when moving controls
- Support masks and inpaint
- Get feedback

Thank you!

<https://github.com/didiffusion/spicy-diffusion>

<https://spicy-diffusion.vercel.app/>

Laia / Laboratorio Abierto de Inteligencia Artificial

Scope for the hackaton:

- Quick offline proof of concept with static images
- Implement MIDI events
- Bind UI to MIDI events and image element
- Parse prompt to generate permutations
- Hit that API to make GPUs go BRRRRRRR