

# Interactive PIV Activity

Use a simulation to generate a vector field, record it as a video, and analyze it using Python!

## 1. Open the Vector Field

1. Go to: <https://editor.p5js.org/SihanZhang/sketches/Z-zdZZLzw>
  2. Press the Play button to start.
  3. You can edit the code to change how the vector field behaves — try adjusting variables!
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## 2. Record Your Vector Field

1. Open **SimpleScreenRecorder**, by opening terminal and entering `simplescreenrecorder`.
  2. Choose **“Record a fixed screen area”** and select just the p5.js canvas.
  3. Set the **frame rate to 2 FPS**.
  4. Set:
    - **Container:** mp4
    - **File path and name:** e.g. `~/ParticleImageVelocimetry/yourname.mp4`
  5. Click **Start Recording**.
  6. Let the simulation run for a few seconds, then click **Save Recording**.
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## 3. Run the PIV Analysis

1. Open the terminal.
2. CD into ParticleImageVelocimetry
3. Run the analysis with: `bash python run_piv_video.py yourname.mp4`