PhysLoop

Training-time data construction

Text
"A glass falls and shatters"

+ Images (optional)

+ Video (optional)

Inference-time video repair

Input video (with physical issues)

+ Text
"Make it follow realistic physics"

+ Constraints
(e.g., mask, region, physical rules)

Input for data generation

Input for video repair

1 Planner Agent

- Understand request
- Expand prompt
- Write task spec

Task spec

2 Asset Manager Agent

- Local / web / generate
- Build scene
- Set cameras

Scene assets

3 Executive Agent

UE Chaos (rigid) · Taichi (cloth) · Genesis (fluid)

- Simulate
- Queue jobs
- Edit parameters

Billiard angle
Launch speed
Glass drop speed
...

Multi-view outputs

RGB · Depth · Segment · States

4 Verifier Agent

Human review (opt.)

- Physics checks
- Event checks
- Human review (opt.)

Pass · Revise

5 Refiner Agent

- Improve realism
- Keep dynamics
- Video model

Video generation model

6 Final Verifier Agent

Human review(opt.)

- Final check
- Human review(opt.)

Pass · Revise

Training video output (PhysLoop-Gen)

Physics-rich training video

Repaired video output (PhysLoop-Repair)

Physically consistent video

Feedback (revise to Stage 1)

Supporting Tools (optional)

Asset & Scene Tools | Simulation Tools | Verification Tools | Video Generation Tools | Utilities