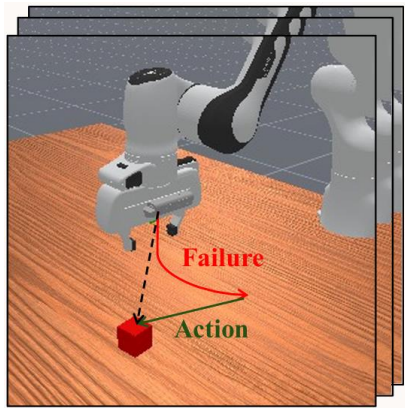


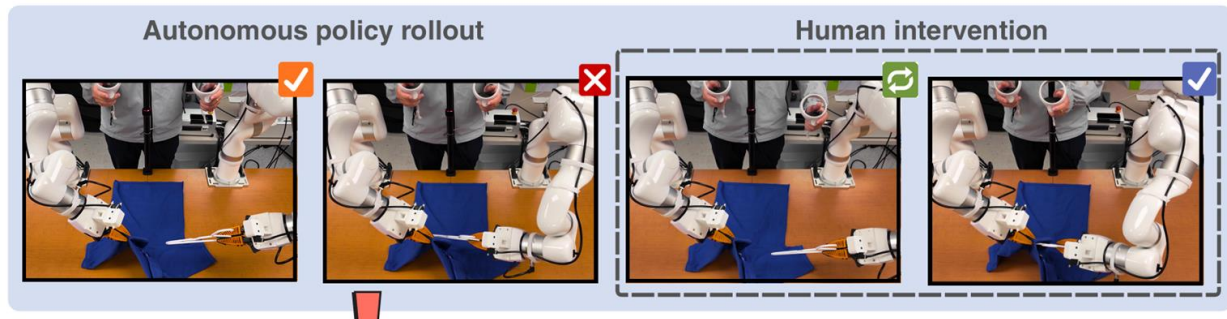
FAR: Failure-Aware Retry for Test-Time Recovery and Continual Policy Improvement

Haoran Hao, Shahram Najam Syed, Jeffrey Ichnowski, Jeff Schneider

Background: Failure Recovery



Failure in Task Execution

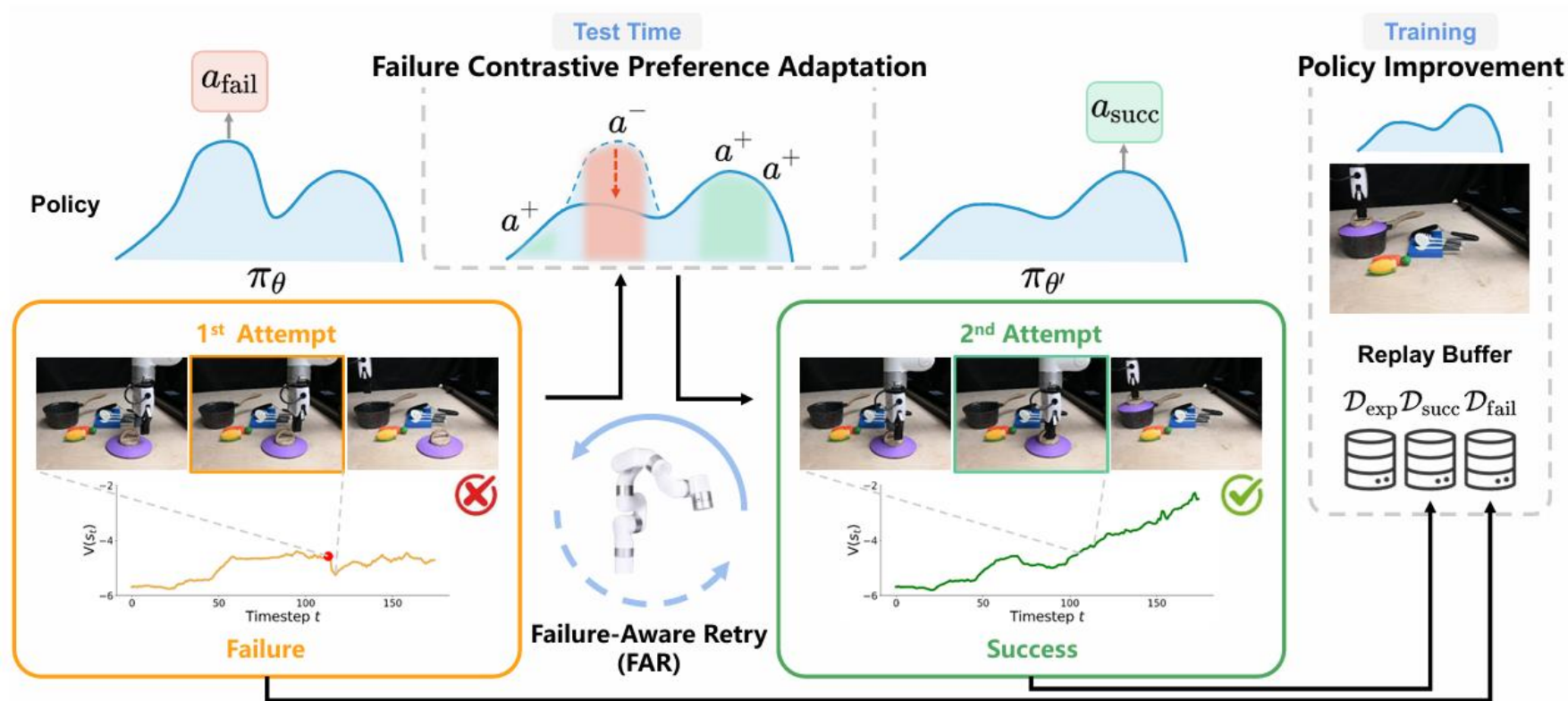


Human Correction

Previous methods

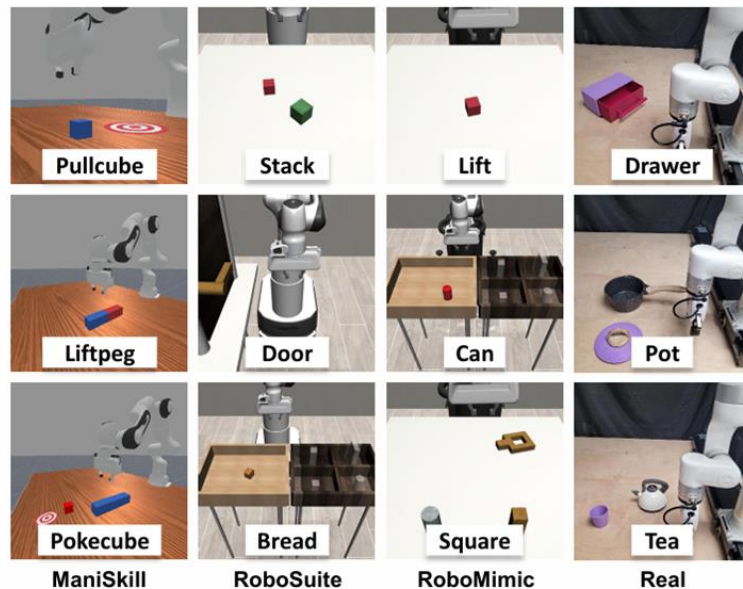
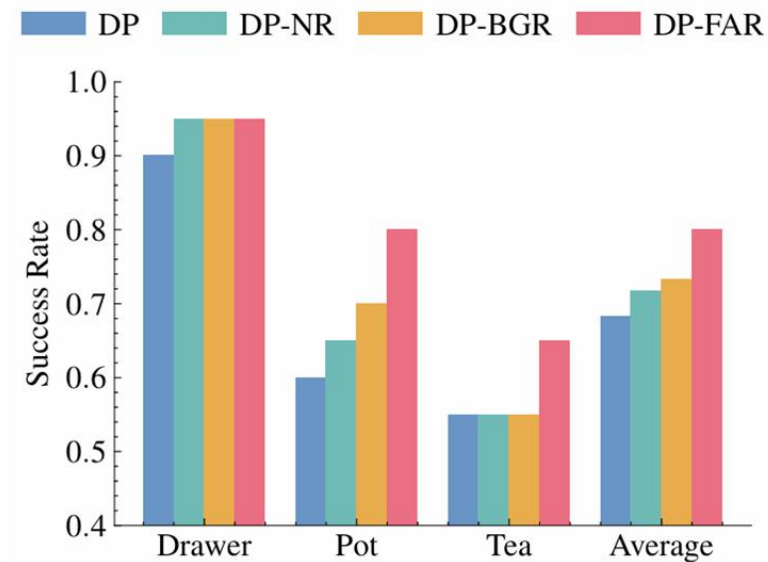
- Human Efforts
 - Collecting data and retraining the model (Dagger)
- How can we detect failures and recover automatically?

Our method: Failure-Aware Retry



Contrastive Test-Time Adaptation Using Previous Failure Trajectories

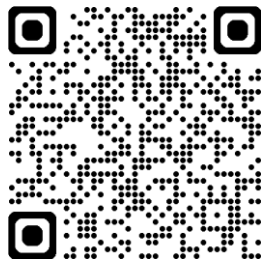
Experiments



Failure-Aware Retry Improves Success Rates and Robustness without Additional Human Annotations

Takeaways

- FAR enables the robot to automatically recover from failures without human intervention.
- FAR improves both success rates and robustness by learning from failures.



Paper Link: [FAR: Failure-Aware Retry for Test-Time Recovery and Continual Policy Improvement](#)