# CALVIN benchmark

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TL;DR

CALVIN consists of a novel manipulation benchmark for learning Goal Conditioned policies using either goal images or language as free-form text. It includes a simulated manipulation environment, an annotated dataset taken from Play, and a baseline algorithm (MCIL) introduced by Lynch & Sermanet (2).
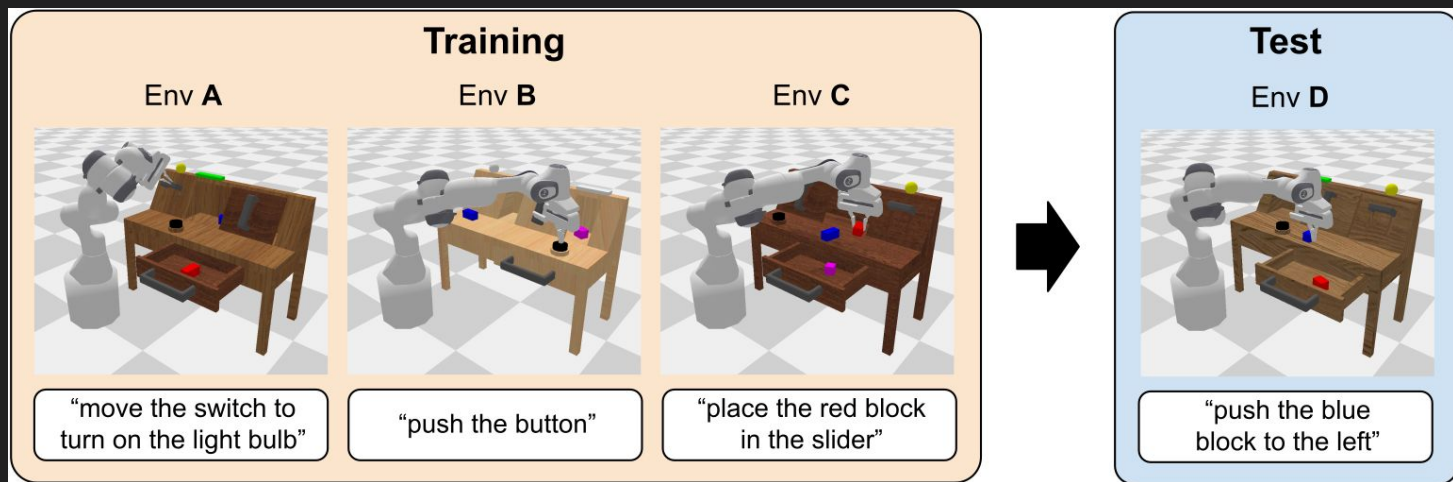
Background

The key takeaways from previous work are listed below:

- **Learning Latent Plans from Play**
  - Goal Conditioned Behavior Cloning
  - Dataset generation via Goal Relabelling
- **Language Conditioned Imitation Learning over Unstructured Data**
  - MultiContext Imitation Learning

Goal Conditioned Behavior Cloning (GCBC)

Dataset Generation via Goal Relabelling

Multi Context Imitation Learning (MCIL)

References

1. Mess, Oier et. al. *CALVIN: A Benchmark for Language-conditioned Policy Learning for Long-horizon Robot Manipulation Tasks.*
2. Lynch, Corey & Sermanet, Pierre. *Language Conditioned Imitation Learning over Unstructured Data*.
3. Lynch, Corey et. al. *Learning Latent Plans from Play*