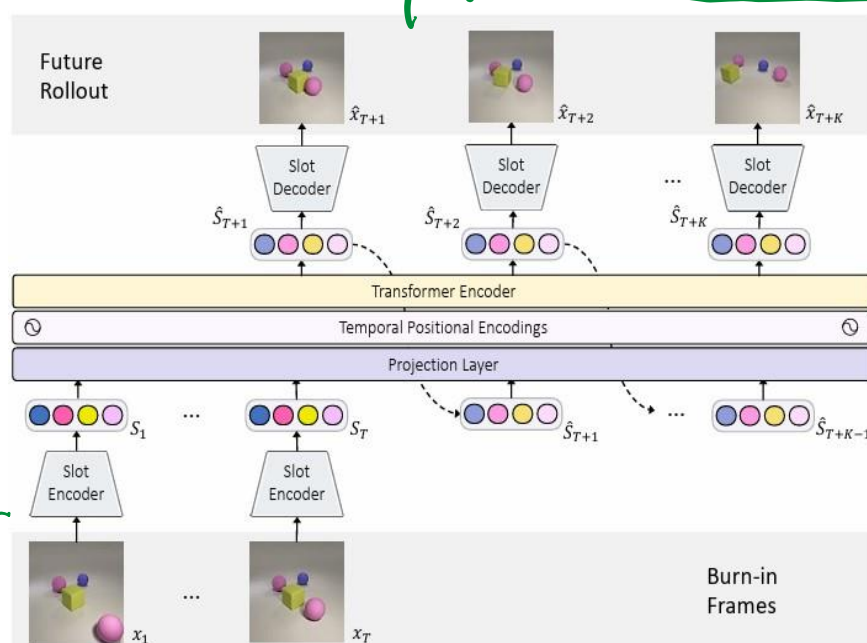


# SLOTFORMER: UNSUPERVISED VISUAL DYNAMICS SIMULATION WITH OBJECT-CENTRIC MODELS

Slotformer: - It is a method that helps understand how objects change their position with time and how they interact within videos or scenes.

transformer-based method

Object centric-models are used



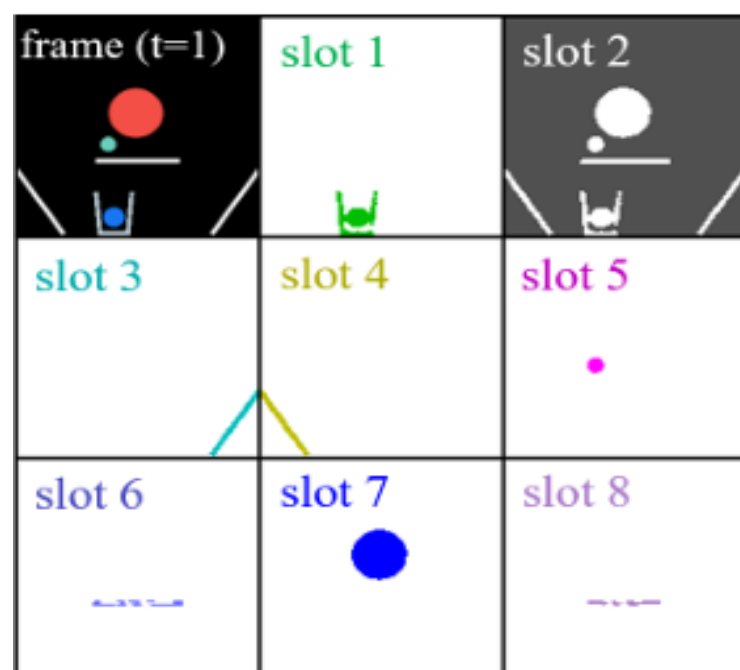
The software will predict the future position of an object

- Multiple video frames
- Extract object slots using trained object-centric models
- Slots are linearly projected and added with temporal positional encoding.
- Then it leads to future slots.

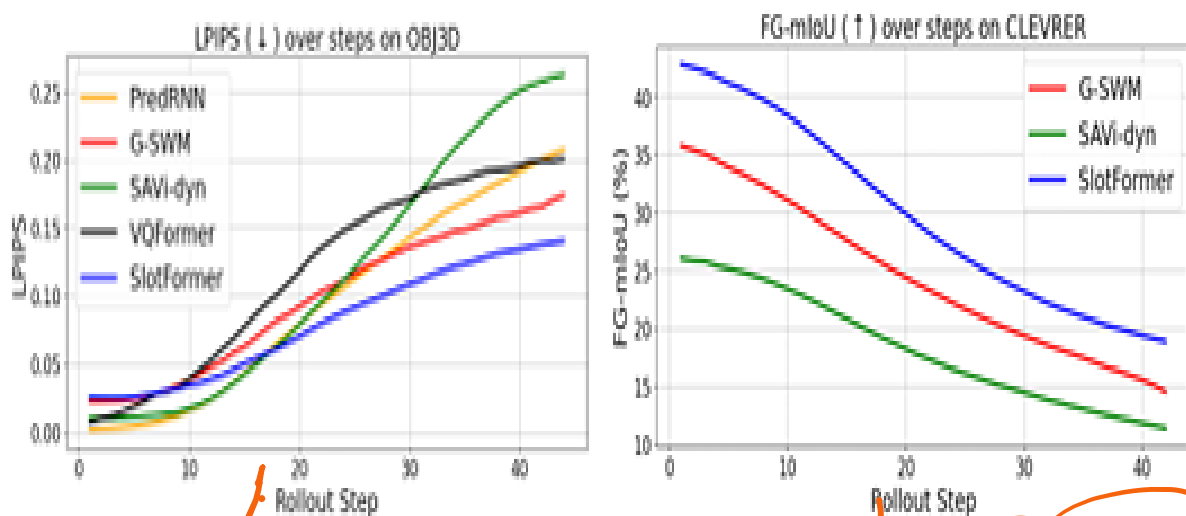
Datasets used :-

There are 3 kinds of datasets used →

1. CLEVERER
2. Physion
3. OBJ3D



Slot decomposition on the first frame



Results of the experiment for OBJ3D dataset

Results of the Experiment where the data used was a cleverer

dynamic modelling is treated as a sequential problem learning problem and it requires no human supervision.