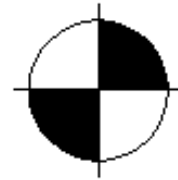


Real-time Pose Estimation of Deformable Objects Using a Volumetric Approach

Yinxiao Li, Yan Wang, Michael Case,
Shih-Fu Chang, Peter K. Allen



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Robotics Group

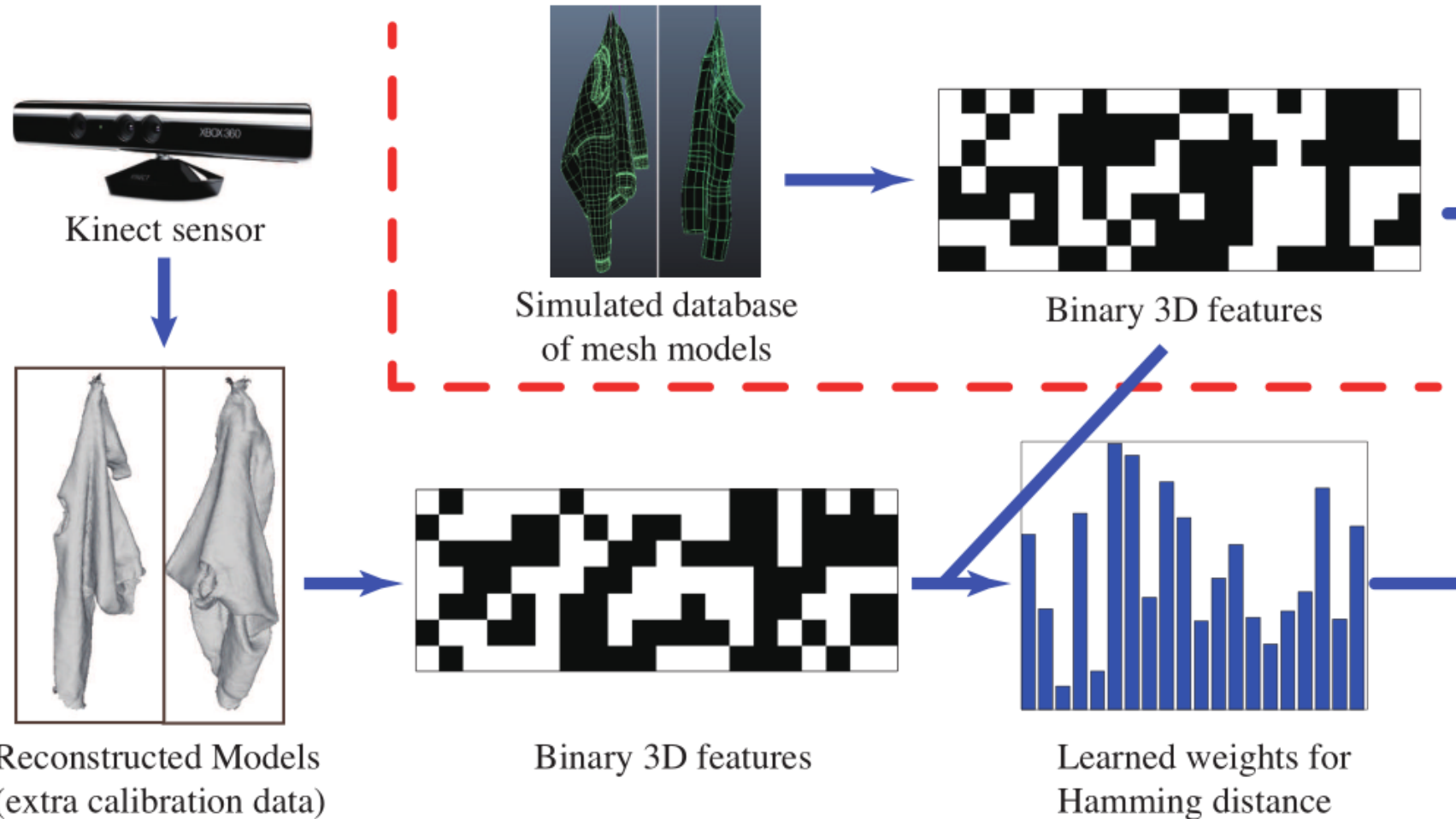


DVMM*lab*
digital video | multimedia laboratory

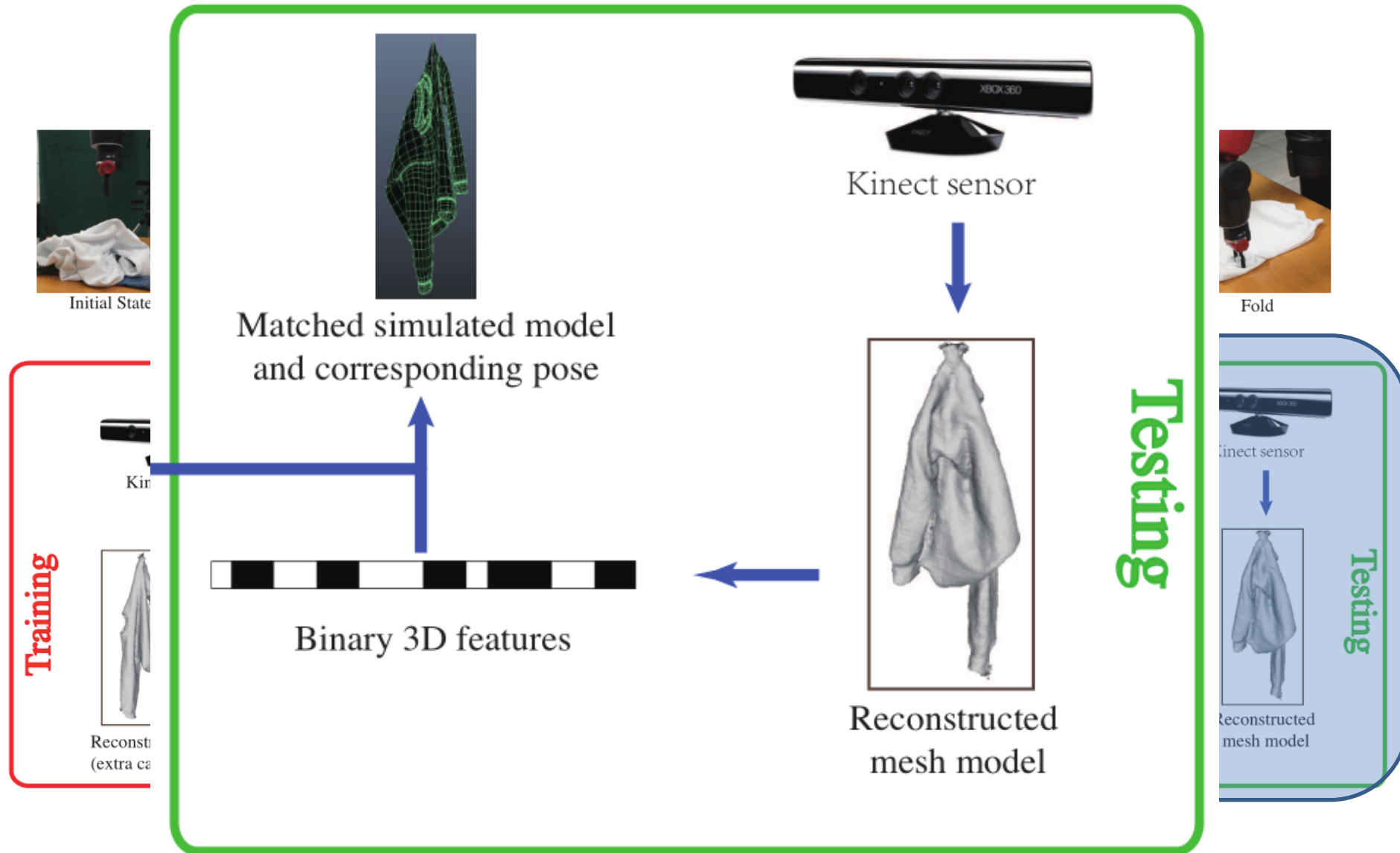
Deformable Object Grasping Pipeline



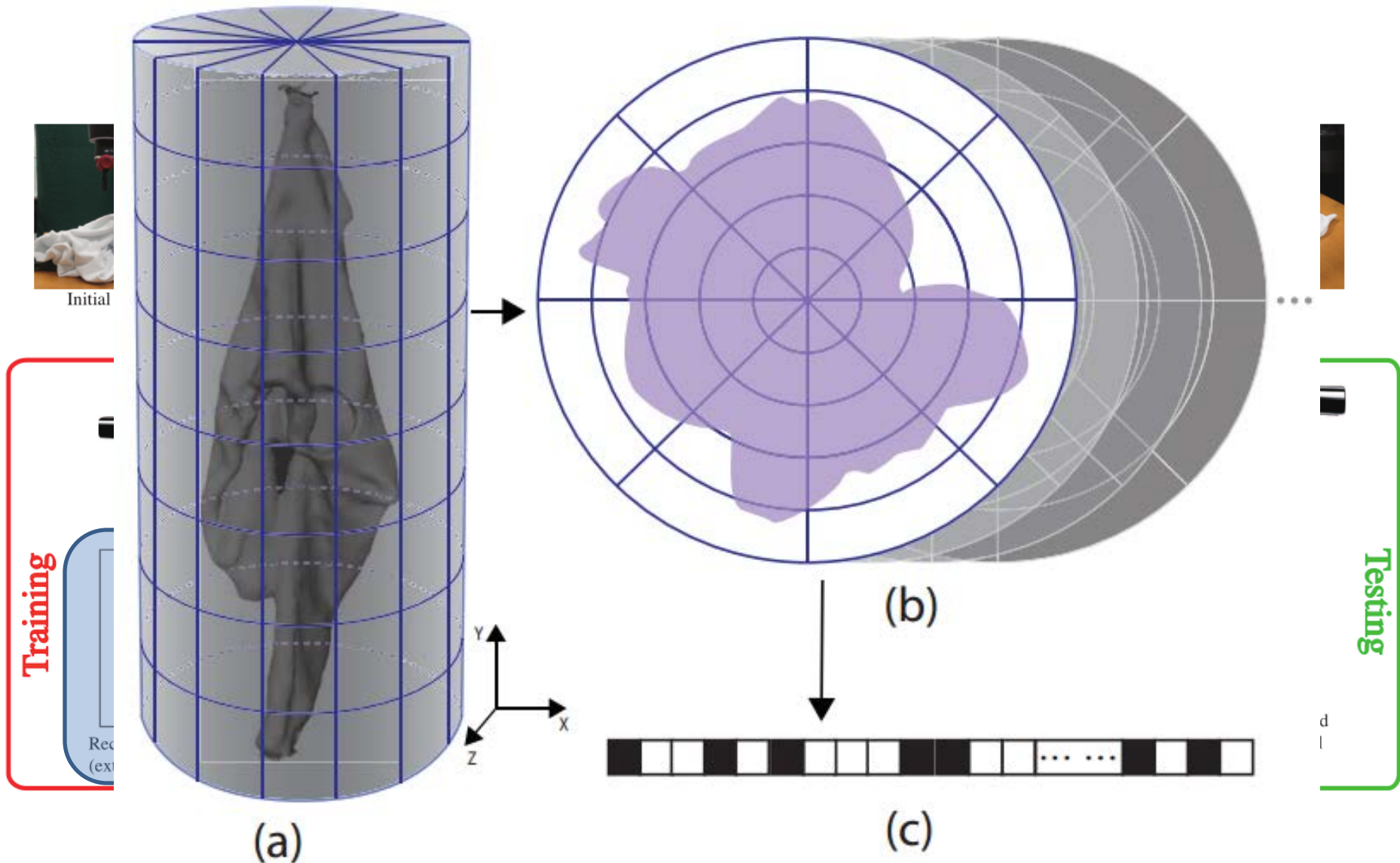
Deformable Object Grasping Pipeline



Deformable Object Grasping Pipeline



Deformable Object Grasping Pipeline



Experimental Results

Color img



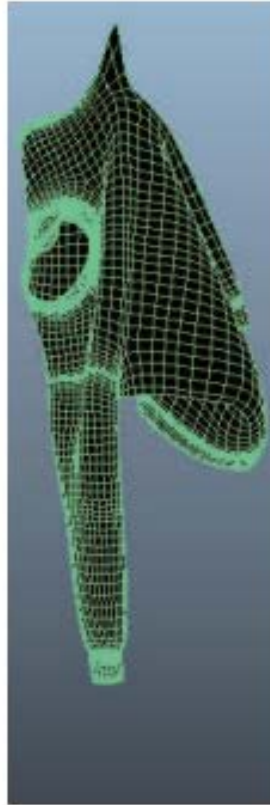
Depth img



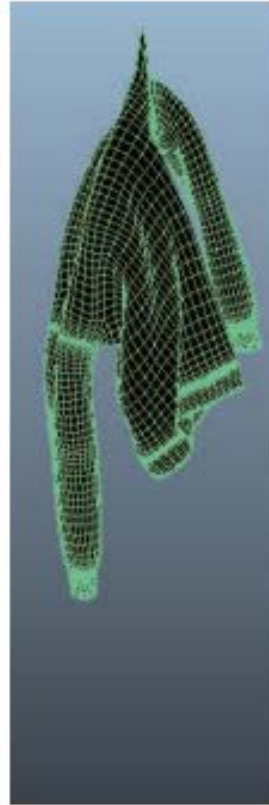
Rec model



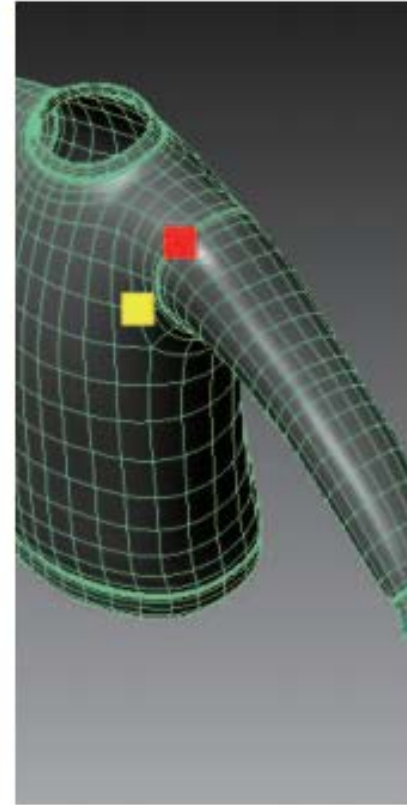
Pred model



GT model



Pts on model



- Average Distance Error: **13.6 cm** (28 tests)

Implement on a robot -- Video



The Baxter robot is
picking up a sweater...