

# Tool Tracking for Periacetabular Osteotomy using CamC

- Background

- Periacetabular Osteotomy (PAO) is an orthopedic surgery that reorients the patient's acetabulum to provide better coverage for the femoral head.

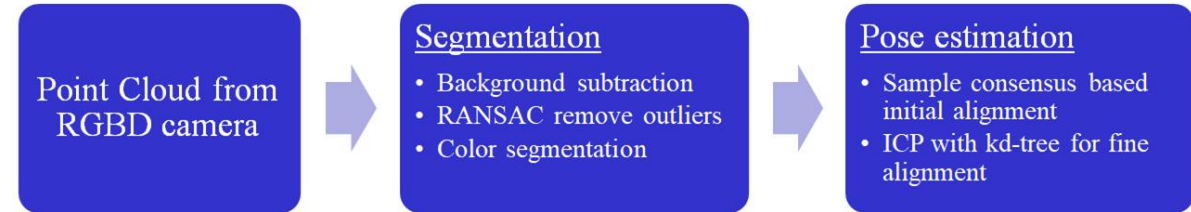
- Motivation

- Previous tracking methods involve multiple x-ray images which are harmful and time consuming.
- Track the tool intra-operatively in order to improve the accuracy of bone alignment.



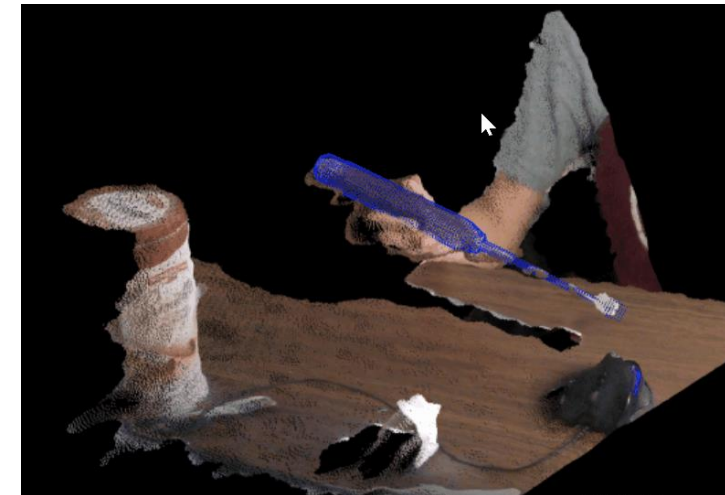
- Methods

- Use RGBD camera augmented mobile C-arm(CAMC) to reduce the amount of X-ray images needed.



- Results

- Max error length-wise is 11 mm
- Max error width-wise is 2mm



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