Unsupervised Surgical Instrument Segmentation via Anchor Generation and Semantic Diffusion

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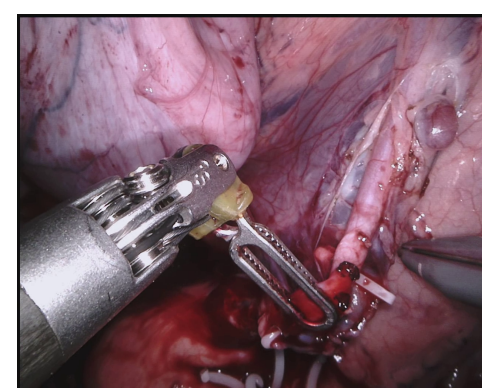

Existing Fully Supervised Methods

Very Expensive 😞

Instrument Segmentation In Surgical Video

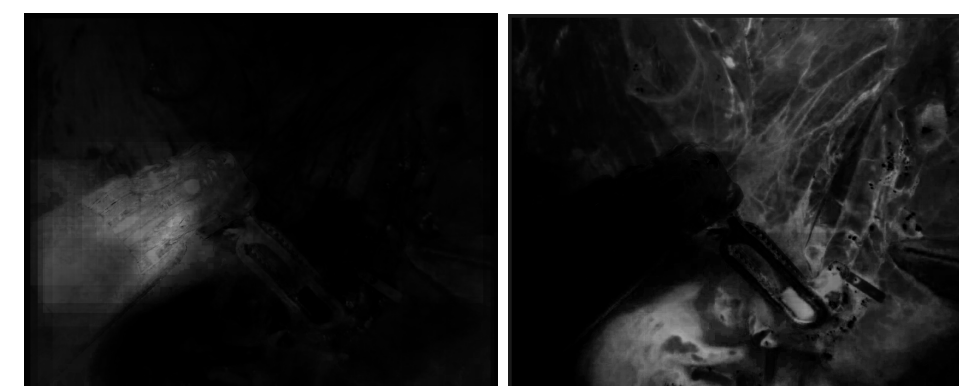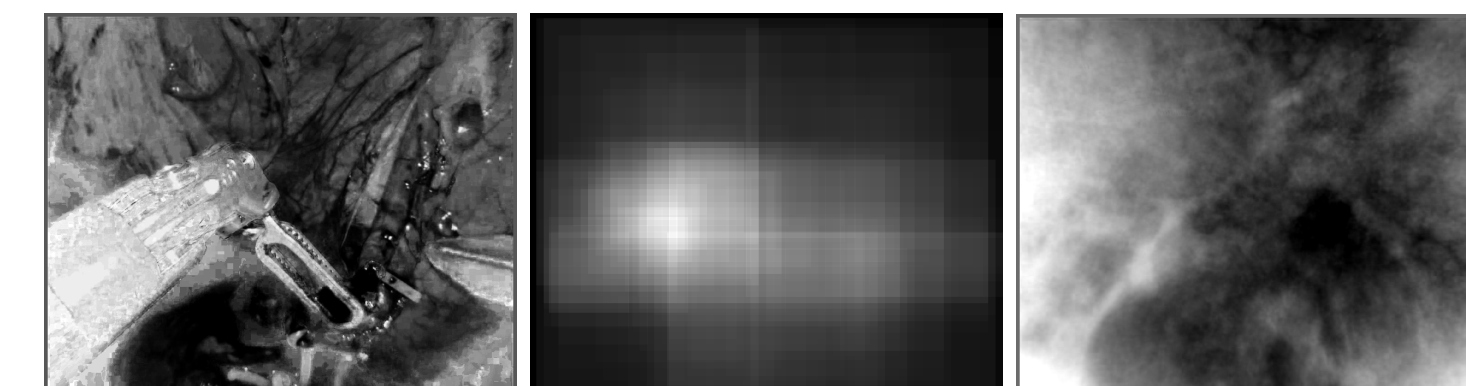**Our Proposed Unsupervised Method**

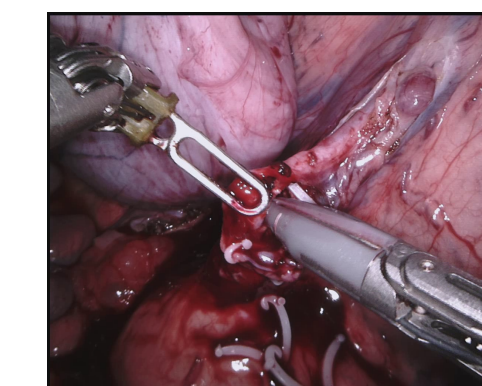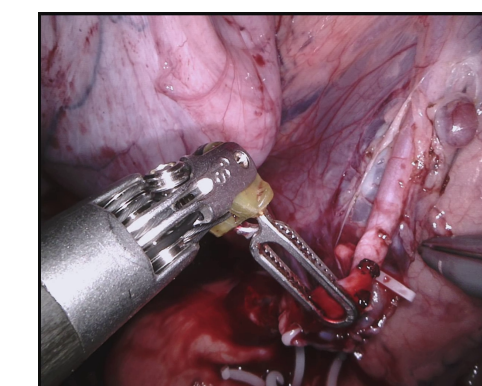More Affordable 😊

U-Net

Manual Annotation

Anchor Generation

Coarse Cues

Inter-image Correlation

Semantic Diffusion

Promising Results

EndoVis 2017 | ISIC 2016

Extendable to Other Domain

Surgical Instrument → Skin Lesion

Extendable to Other Settings

Unsupervised → Fully Supervised | Semi-Supervised

Codes at https://github.com/Finspire13/AGSD-Surgical-Instrument-Segmentation