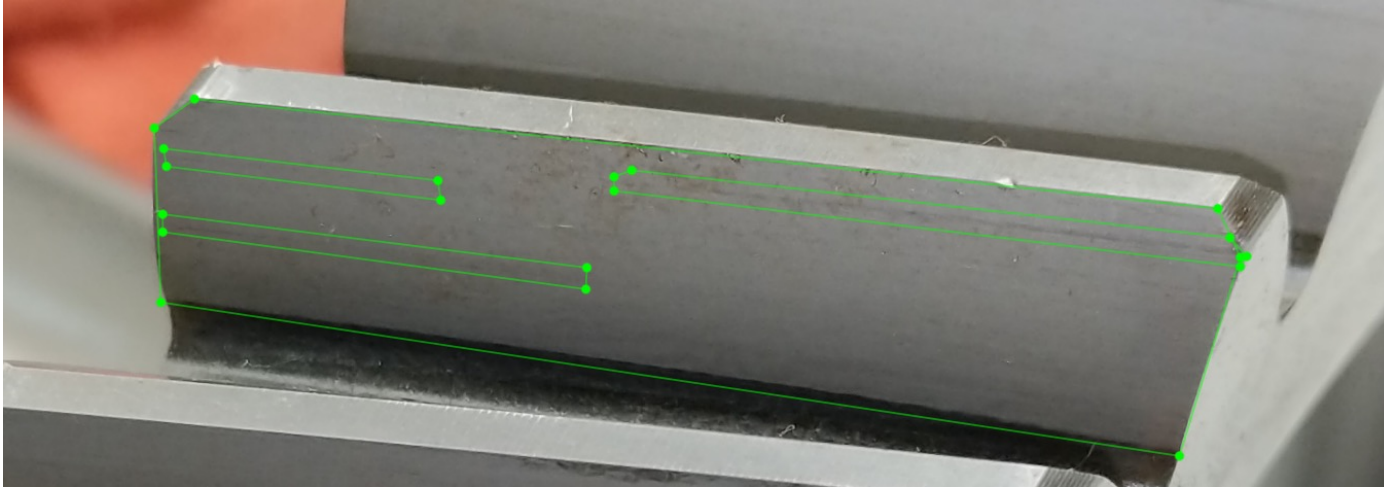


Grinding Burns - Objective



Isolate areas of grinding burns on gear faces



AI Model

- AI model takes RGB image as input
- Phase 1 identifies tooth face and applies a crop to the image
- Phase 2 segments burn marks on cropped image
- 395 images of gear faces from 4 parts
- 17 images sampled from 1 part used for training

Input Image to the AI



Output Phase 1

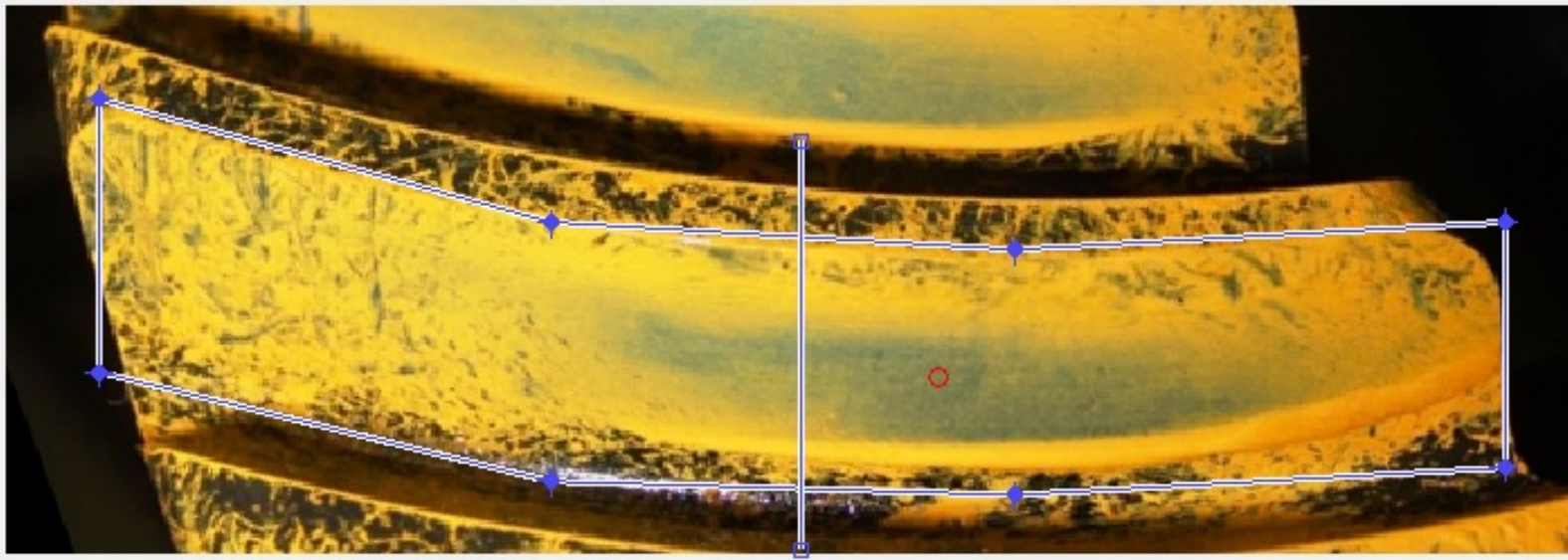


Phase 2 - Input



Final Output

Contact Patterns - Objective



Find the location of the center of the contact pattern with respect to the tooth Face (above)



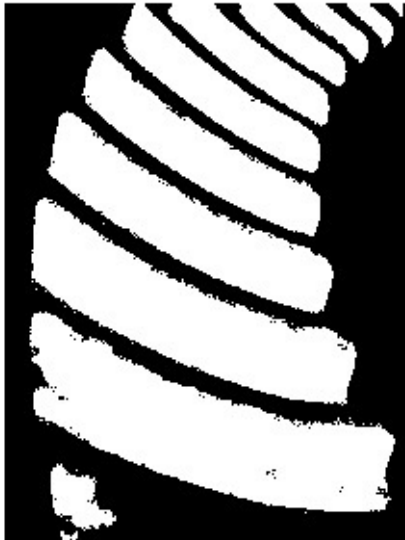
AI Model

- AI model takes RGB image as input
- Phase 1 identifies Tooth Faces
- Phase 2 identifies Contact Patterns
- Final Output is the location of the centroid of the contact pattern (Shown as blue dots in the bottom right image)

Input Image to the AI



Output Phase 1



Output Phase 2



Final Output

