

# Hybrid IVUS and OCT Imaging System Development

## Advanced cardiac imaging for arterial lesions, pre/post stent placement



### The Challenge

- Co-development of a second-generation dual modality device
- High-speed rotation (140 rps) with tight positional accuracy & audible noise requirements
- Defining image quality requirements based on 1st generation device & market competition
- Develop patient interface module to enable efficient co-development in electrical and software architecture

### The Solution

- Developed custom console and patient interface module hardware incorporating optical and RF signal delivery
- Improved performance via new system design in both IVUS & OCT imaging modalities
- Identified specialized suppliers for new components to enable improved performance
- Performed FEA to inform rotational resonance zones correlating to audible noise

### The Result

- Completed Alpha prototype system with 90% capability, informed Beta design effort (ongoing)
- Beta system on-schedule to meet all design requirements, enable further software and hardware integration
- Next phases include verification, submission, & commercial manufacturing



Novasight Hybrid® System

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