Endoscopic Tissue Approximation

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Endoscopy
- Once diagnosis, now surgery

Laparoscopy
- Early minimally invasive surgery.
- Tools are rigid and short
- 3 incisions to create a "working triangle"

Issues & Concerns:
- Tissue stabilization
- Clips slip from tissue
- Even pressure along clip
- Full thickness is critical

Current Tools
- T Tacks
- EndoCinch
- g-Prox

Timeline

September
- Initial literature research
- Physician interviews
- Observation of endoscopic procedures

October
- BILEC Conference
- Physician interviews
- Physician surveys
- Synthesis
- Design matrix for tissue approximation techniques
- Idea generation

November
- Idea generation
- Narrow down to top 6 ideas
- Mechanisms design help from Boston Scientific
- Design matrix and idea narrowing

December
- Sketch modeling
- Mid Year deliverable and presentation to Boston Scientific
- Narrow down to final design

January
- Mechanism idea generation
- Looking at parameters for clip design
- CAD of designs

February
- Exploring rapid prototyping
- SLA rapid prototyping
- Resolution Clip meeting
- Idea generation
- Narrowing down of ideas

March
- Narrowed to final design
- Proof of concept testing

April
- Investigation of additional features
- Final presentation to Boston Scientific