



# SmartPhantom

Liam Cooper

[liam.cooper@stfc.ac.uk](mailto:liam.cooper@stfc.ac.uk)

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# Gluing Jig

- No issues when winding
  - ~2 hours per layer
- Fibres sit well in grooves
- Easy to spot misplaced fibres

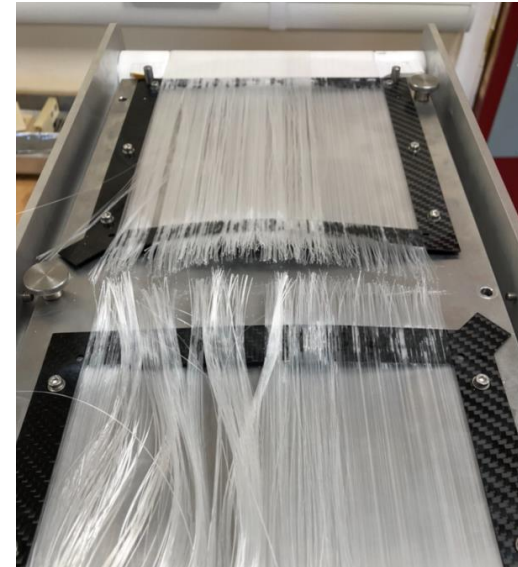


# Prototype 1 - Tight Wind

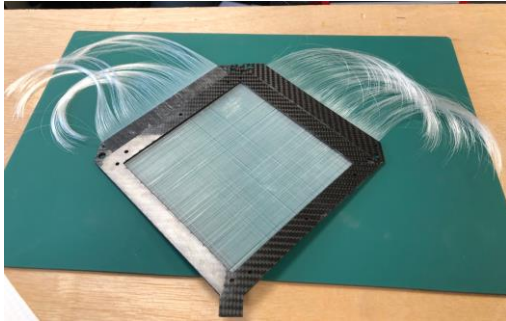
A cross-sectional view of the stations show that the fibres are well aligned



The combined tension of all the fibres is too large for the frames.



# Prototype 2 - Loose Wind

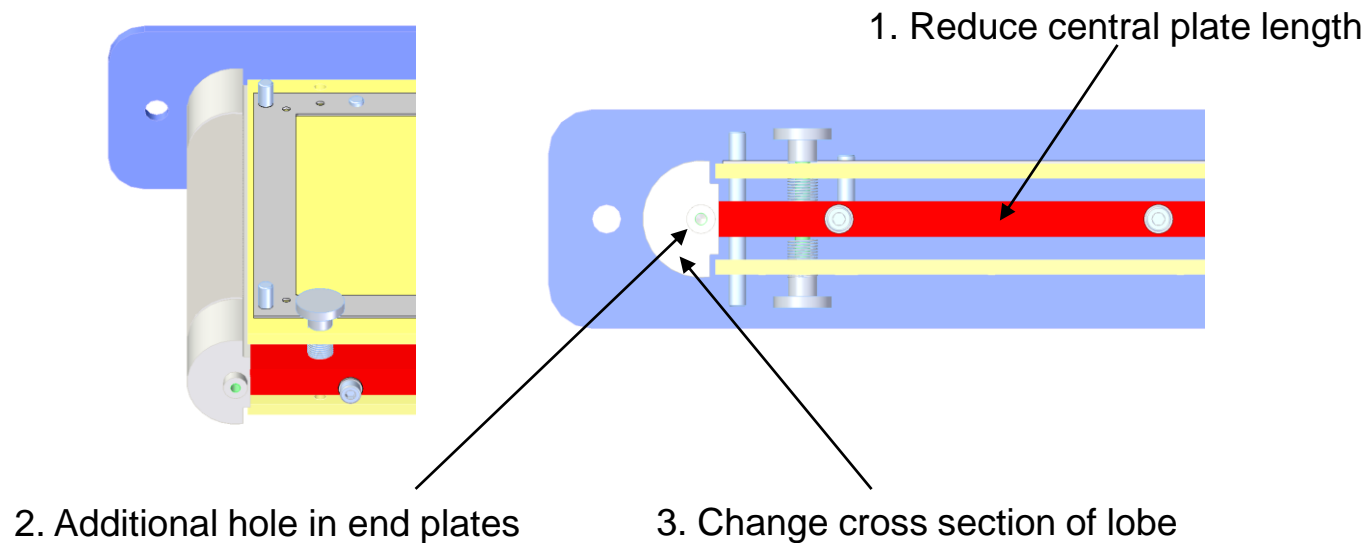


- Improved flatness of frames
- Simple to assemble orthogonal layers
- Poor alignment of fibres



**Need to find a balance between tension to keep good alignment, without bending the frames.**

# Improving Alignment



**Modified drawings are completed, manufacture is underway, aim is for reassembly on Friday (20/09/19)**

# Mitigating Tension

- Smaller aperture
- Circular aperture
- 1 layer of winding
- Thicker frames
- Looser winding

