



CRC

for

Premium

Quality

Wool

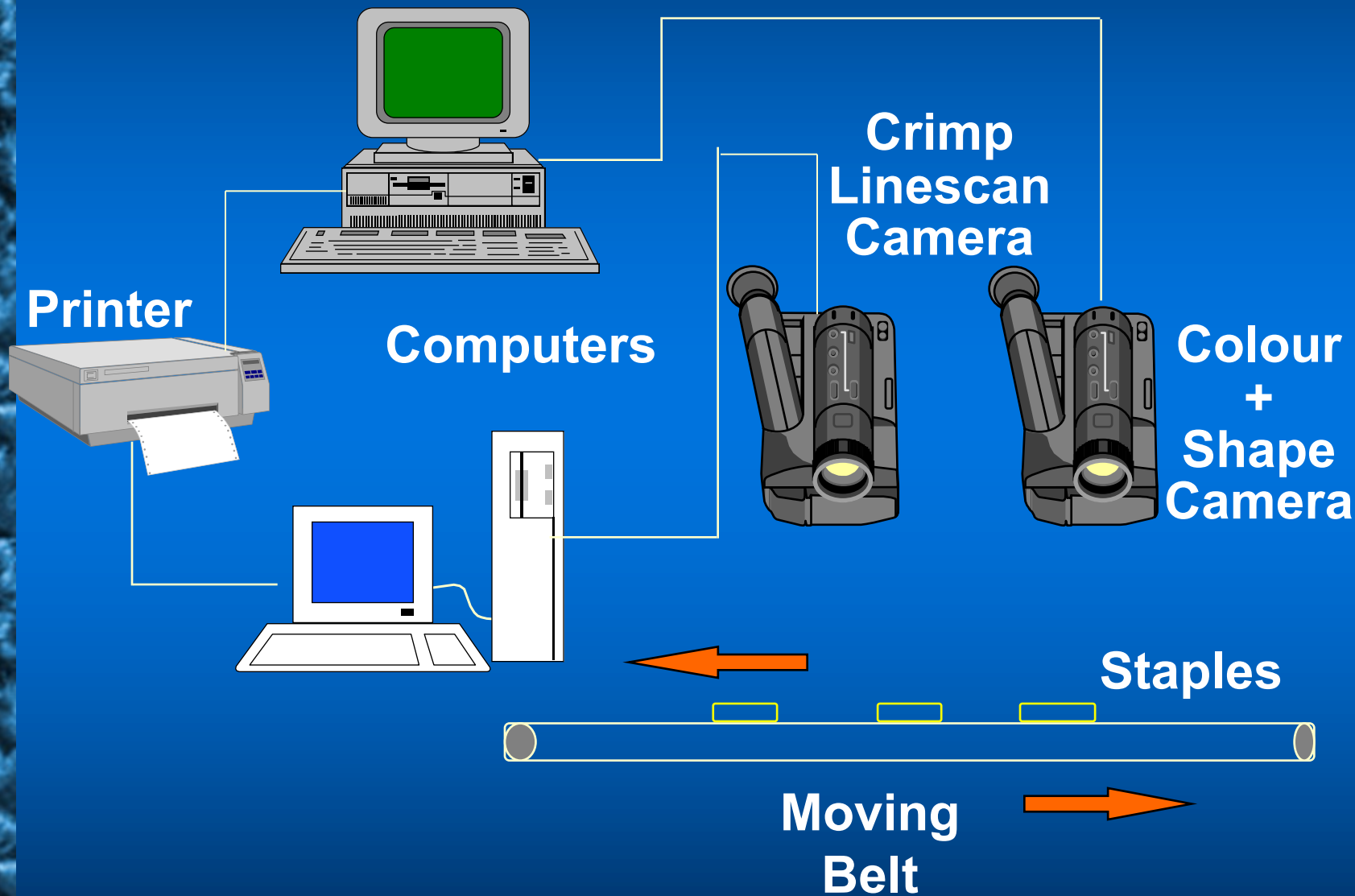
# Style Instrumentation

Produced for the CRC for Premium Quality Wool undergraduate program by;  
Dr. W. Humphries, CSIRO Textile & Fibre Technology.



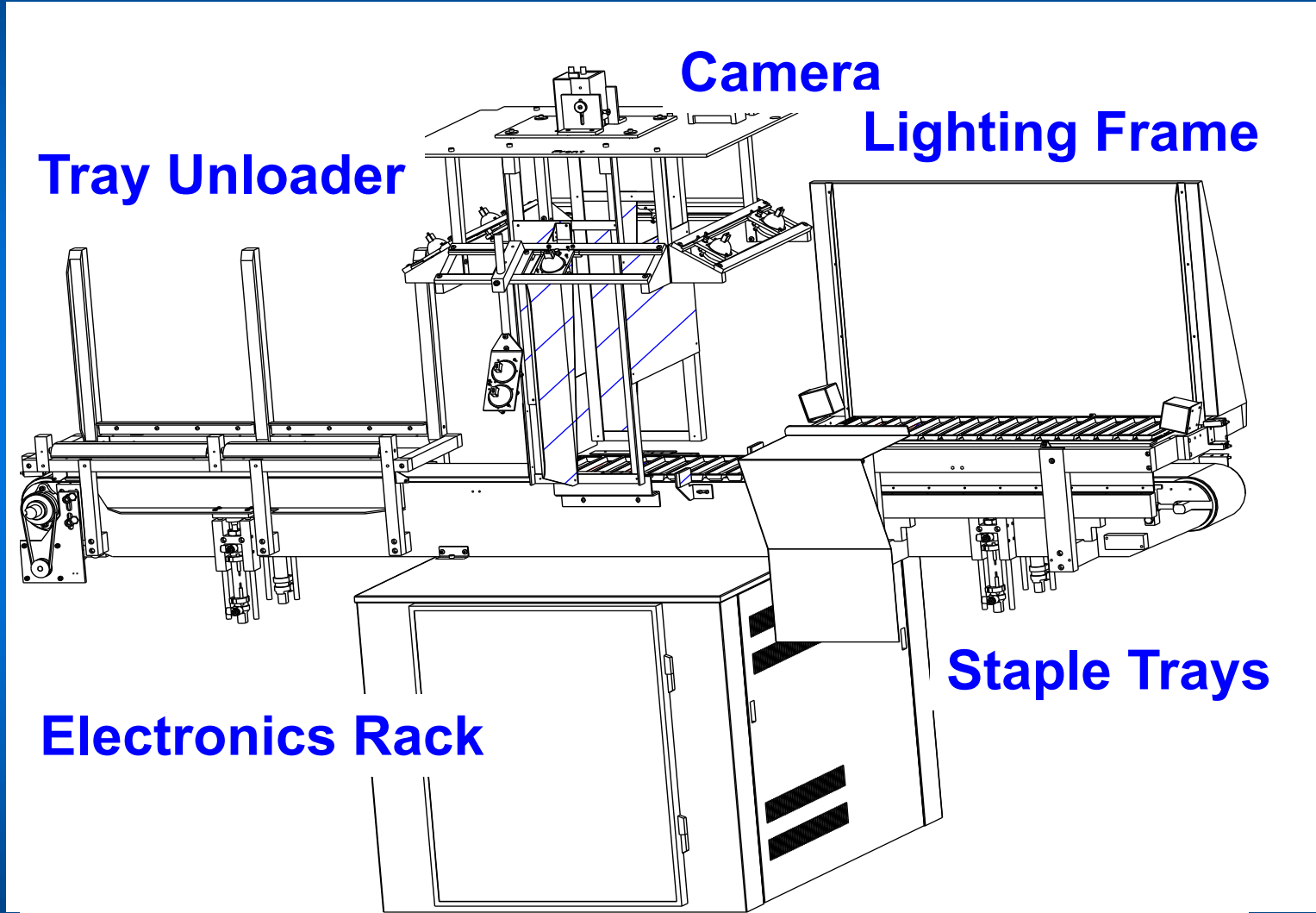
# Prototype: Image Analysis

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# Commercial Prototype

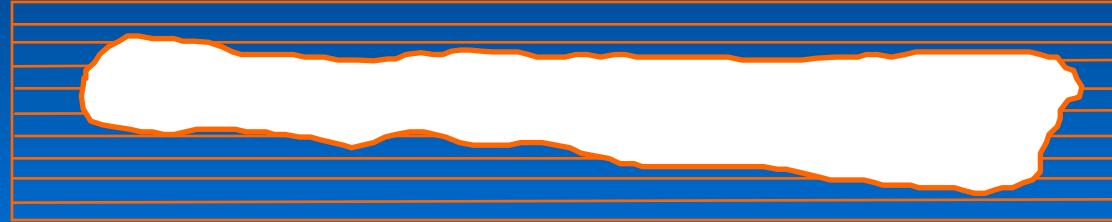


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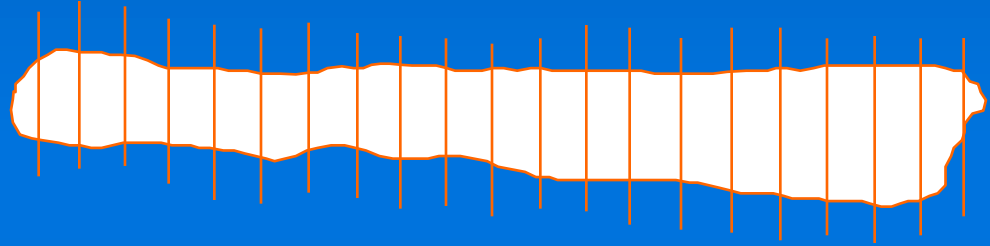


# Image Analysis Measurements

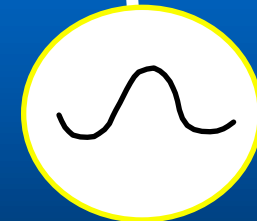
Size and Shape



Colour Profile



Crimp Patterns



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# Inferred Staple Attributes

**SIZE**

Width, Length

**SHAPE**

Tip

**COLOUR**

Weathered Tip

Dust (Colour & Penetration)

**PROFILE**

Greasy Colour

Stain Bands

**CRIMP**

Crimp Frequency

Crimp Definition

Cottedness

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# Style Metrology Results

	between <i>Instrument</i> Variance		between <i>Replicate</i> Variance	
	<b>R<sup>2</sup></b>	<b>std</b>	<b>R<sup>2</sup></b>	<b>std</b>
<b><i>Length</i></b>	<b>0.99</b>	<b>0.8</b>	<b>0.84</b>	<b>2.84</b>
<b><i>Tip Length</i></b>	<b>0.91</b>	<b>0.3</b>	<b>0.36</b>	<b>0.86</b>
<b><i>Crimp Frequency</i></b>	<b>0.91</b>	<b>0.12</b>	<b>0.70</b>	<b>0.21</b>
<b><i>Crimp "Definition"</i></b>	<b>0.92</b>	<b>6.38</b>	<b>0.62</b>	<b>4.24</b>
<b><i>Brightness</i></b>	<b>0.97</b>	<b>0.41</b>	<b>0.67</b>	<b>1.16</b>
<b><i>Yellowness</i></b>	<b>0.96</b>	<b>0.16</b>		

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