# Aims:

Develop a system that can identify and categorise defects in fabric. With the end goal of creating a system that can inspect and categorise using a live feed of fabric in real time.

# Objectives:

Achievable Objectives:

1. Find or create dataset of defective fabric and control fabric.
2. Create system for managing images, possible database.
3. Segment images, possibly using open cv.
4. Identify defects without using machine learning.

* Compare different algorithms to achieve this, blob detection, edge finding, mean squared error and so on.

1. If more data is needed use the above prototype to create more labelled images.
2. Try machine learning techniques to categorise defects.

* Logistic regression, auto encoder, neural net and so on.

Stretch Objectives:

1. Create a machine that generates a live feed of fabric.
2. Optimize so that the processes of segmenting, detecting then categorising can be done in real time. Possible using threading.
3. Detect on a live feed of fabric.