



Industrial Sewing Skills

The next section contains a series of skills challenges, using lockstitch and overlock machines. These challenges are designed to ensure you gain a full understanding of the capacity of

industrial sewing machines, you know how to control the machines and operate them at speed, in a professional manner.

The series of exercises provide a step-by-step approach, that will build your confidence and help you to achieve quality standards whilst meeting deadlines and targets.

Lesson 3.1 The Continuous Loop

This lesson has two stages that involve the creation of continuous loops.

A continuous loop is two long, narrow pies of fabric which are stitched together and wrapped around the machine bed. This enables continuous sewing that will help you to build up speed, develop machine control and achieve basic quality standards when stitching.



Stage 1 of this lesson is designed familiarise you with your machine and develop your confidence. The second stage is about controlling your machine and handling work. To continue follow the instruction below:

Lesson 3.1 Continuous Loop (Stage 1)

THE TASK: Create a continuous loop and practise sewing around the loop randomly, building speed as you sew.

LEARNING OUTCOME: By completing this task you will:

- Realise and understand the capacity of an industrial sewing machine
- Gain the confidence needed to control an industrial sewing machine
- Understand the need to continually fill the spool and get used to doing this as you sew

PREPARATION: To prepare for the task you must:

- Cut two strips of plain fabric 92.5 cm long x 15 cm wide (if you are training in company use the type of fabric you will be expected to work on in production)
- Thread your machine with contrast thread and ensure a full spool of thread is inserted
- Ensure a second thread is filling a spare spool/bobbin as you sew
- Set machine stitch to the correct length (2 or 3)
- Check tensions to ensure a well-balanced stitch (check stitch)
- Set auto trim or have snips to hand
- Ensure the right type of needle is inserted and it is undamaged

WORK SAFELY: To complete this task you must follow the safety rules below:

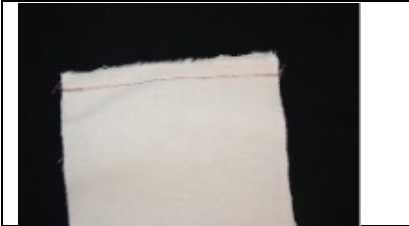


- Ensure a finger guard is fitted on the machine
- Long hair is tied back
- Flat, closed shoes are worn
- No scarfs, long or obstructive jewellery I worn
- The chair is set at the right height and positioned correctly, and all tools are close to hand

- Turn the machine off when not sewing

CARRY OUT THE TASK (Stage 1)

Create and position a continuous loop, as detailed below, creating the continuous loop is also demonstrated in the video 00.00 to 01.45.

Please note stage one of this exercise is **not** covered in the video.

		
<p>1. Take the two cut lengths and stitch them together. Back tack at the beginning and end of stitching.</p> <p>Note: at this stage your tutor may do this for you.</p>	<p>2. Wrap the strip underneath and around the machine bed, ensuring the raw seam is face down. Turn the fabric ends and join the second seam. Ensure the raw seam is face down.</p>	<p>3. Lifting the presser foot using the knee lift, place the fabric centrally under the presser foot and lower the foot again using the knee lift. This will secure the fabric in place.</p>
<p>4. Use your feet to press the machine pedal and start to sew randomly, start slowly, and build up speed.</p>		

Practise controlling the machine speed with your feet.

Make the machine go as fast as it can and try and keep control. This will give you a feel for the machines capacity and help build your confidence.

Use both hands to **guide** the fabric through the needle area, let the feed dogs take the fabric though, keep your fingers lightly on top of the fabric and your thumbs beneath, do **not** grip the fabric, try to force it through or hold it back.

When you feel ready and confident, go on to Stage 2 of this lesson.

Lesson 3.1 Continuous Loop (Stage 2)

THE TASK: Create a continuous loop that demonstrates aligned stitching that meets quality standards.

LEARNING OUTCOME: By completing this task you will:

- Control an industrial sewing machine effectively
- Gain the skills needed to sew straight, aligned long seams
- Understand the need to continually fill the spool and get used to doing this as you sew
- Handle long fabric lengths
- Work to quality standards at speed

PREPARATION: To prepare for the task you must:

- Cut two strips of plain fabric 92.5 cm long x 15 cm wide (if you are training in company use the type of fabric you will be expected to work on in production)
- Thread machine with contrast thread, ensuring a full spool is inserted
- Ensure second thread is filling a spare spool/bobbin
- Set machine stitch to the correct length (2 or 3)
- Check tensions to ensure a well-balanced stitch
- Set auto trim or have snips to hand
- Ensure the right type of needle is inserted and it is undamaged
- Create and position the continuous loop

QUALITY STANDARD: To meet the quality standard you must ensure:







- The stitch is even and well balanced
- There are 10 to 12 stitches per inch/2.5cm (2/3 setting depending on the machine)
- Each row of stitches is a foot's width apart

WORK SAFELY: To complete this task you must follow the safety rules below:

- Ensure a finger guard is fitted on the machine
- Long hair is tied back
- Flat, closed shoes are worn
- No scarfs, long or obstructive jewellery I worn
- The chair is set at the right height and positioned correctly, and all tools are close to hand
- Turn the machine off when not sewing

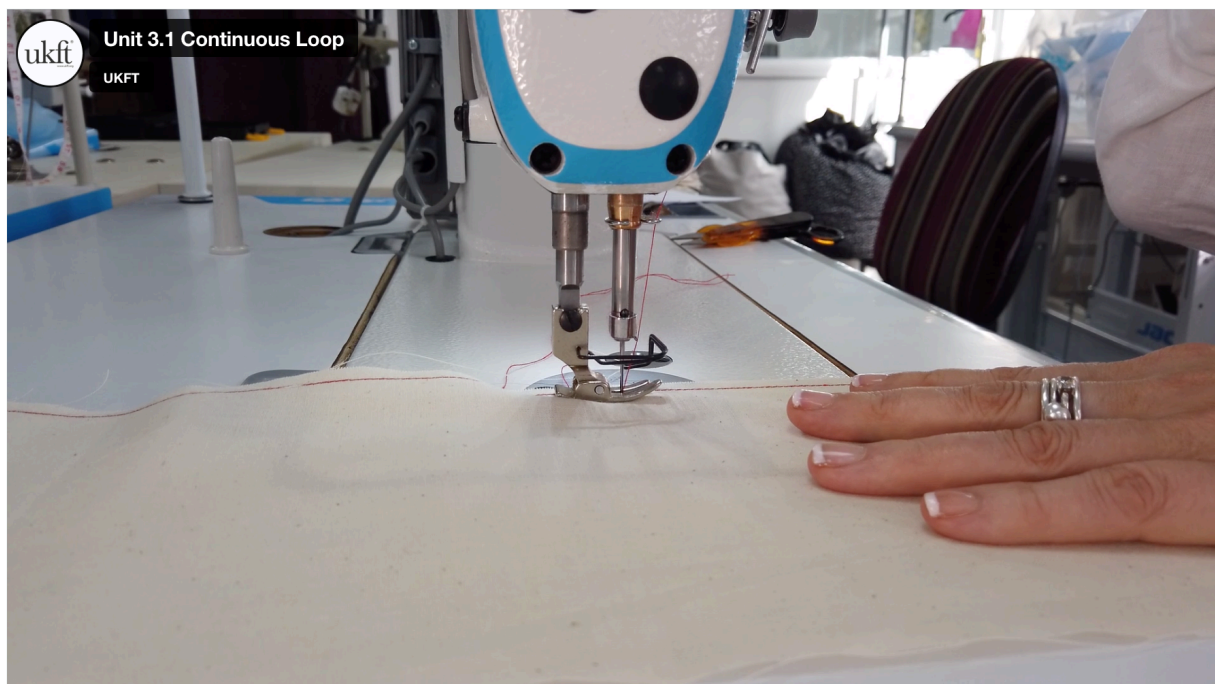
CARRY OUT THE TASK (Stage 2)

To carry out this task see the instructions below:

		
1. Cutting two lengths of fabric approx. 91.5cm x 15.cm	2. Set your machine, ensuring the correct stitch length (2 or 3) and tension. Join the fabric at one end with a 1cm seam	3. Wrap the strip underneath/ around the machine bed and join the second seam.
		
4. Position the fabric under the foot, aligning the right side of the presser	5. Start sewing, keeping the fabric edge aligned with the edge of the presser	6. Sew a second row of stitching, keeping the sewing aligned to the first row. Feed

<p>foot to the edge of the fabric.</p> <p>Ensure an empty spool is filling on the spool filler as you sew</p>	<p>foot, build and control speed by increasing/decreasing pressure on the peddle with your foot. On completion of your first row of stitching move across and align the right-hand side of the presser foot to the first row of stitching.</p>	<p>and guide the fabric as you sew with both hands. The right hand guiding the fabric to the needle, and the left hand to the left of the needle, lightly keeping the fabric in position. Continue sewing aligned rows until the loop width is full.</p>
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Watch the video below and see a demonstration on how to complete this task.



Unit 3.1 Continuous Loop

<https://vimeo.com/manage/folders/5074940#>

Do not proceed onto the next task until you have filled a continuous loop with rows of stitching that meet the quality standard and completed the Skills Challenge below:

Skills Challenge 3.4

1. Now you have completed the first continuous loop exercise and met the quality standard, what four key things did you learn?
 - The speed your machine is capable of
 - How to handle the fabric as it runs through the machine at speed
 - How to sew slowly
 - How to thread the machine
 - To fill a spare spool/bobbin as I sew
 - How to meet simple quality standards whilst sewing at speed
 - How to sew fast without control

2. When completing the continuous loop exercise, how did you handle and guide the fabric whilst sewing?
 - I guided fabric to the needle with the right hand in front of the needle and off the table and kept the fabric positioned lightly with the left hand, to the left of the needle
 - I guided the fabric to needle with the left hand and kept the fabric in position lightly with the right hand to the left of the needle
 - I guided the fabric with one hand at the front of the needle and one behind the needle, pulling the fabric through whilst sewing



3. How did you ensure each stitching line was straight and spaced evenly?
 - By stitching each row randomly, guessing the gap required between each line of stitching until the width of the loop was full
 - By aligning the right-hand edge of the fabric to the right-hand side of the presser foot to create the first row of stitching and then aligning each row of new stitching to the right hand side of the presser foot.
 - By sewing the first row of stitches along the centre of the loop and then aligning the right-hand edge of the presser foot to the first row of stitching to create each new line of stitching

4. How did you control the speed of your machine?
 - I controlled the speed of my machine using my hand, increasing, or decreasing the speed of my machine using the balance wheel to the right of the machine
 - I controlled the speed of my machine using my feet and hands, using the peddle and the balance wheel to speed up or slow down my machine
 - I controlled the speed of my machine using my feet, increasing, or decreasing the pressure on the peddle to speed up or slow down my machine

Now we will proceed to Lesson 3.2, where you will build on the machine control and handling skills you have learnt so far.