# Facial recognition

## Student instructions

Create a set of measurements that could be used to map your partner's face.

1. Use the string to join two notable points on your partner's face

2. Measure the distance between these points

3. Record this line and the distance on the graph paper

4. Attempt to record as many distances as possible until you create something that resembles a face on the graph paper

## Does smiling change the data?

5. Get the person being measured to smile

6. Re-measure all of the same measurements from the first map

7. Create a second face on a new piece of graph paper with the new measurements on it

8. Swap your faces with two faces from another group

9. Try to identify which one is smiling

## EXTENSION

Can you find a way to record the class data in a spreadsheet?

Can you see a pattern in the data when people are smiling?

How could you turn this into an algorithm?

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# Facial recognition: extension

## The issues with facial recognition technology and deep fakes

A deep fake uses an Artificial Intelligence algorithm to map out someone's face in a video and superimpose that face digitally onto someone else.

This technology is improving and one day soon it could be impossible to tell the difference between a fake video and a real one. This could have major negative implications in our society. Facial recognition technology could also have huge positive impacts on our society.
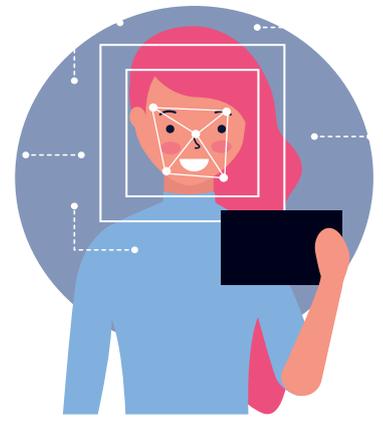
## Social credit systems

Some Governments are planning rollouts of controversial behavioural engineering Social Credit Systems in 2020. The systems use facial recognition to monitor the behaviour of citizens, assigning points for good behaviour and deducting points for anti-social or illegal behaviour. Some people say these systems make them feel safer in a society where everyone is being watched while others think it is an invasion of privacy and can unfairly target people for punishment.

## Want to learn more about facial recognition?

For more information and the latest news on facial recognition, visit:

**www.digitalcareers.csiro.au/links**

> Design a plan for a positive use for facial recognition, taking into account the ethical concerns.

Use a design thinking process to create your facial recognition plan

**EXAMINE** → **PLAN** → **PRODUCE** → **EVALUATE**

Submit your design to YICTE!

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