

Future Farming Robots - Have a go at precision weeding!



You will need:

Some frozen peas and sweetcorn (you could also use pink & white mini marshmallows, tic tacs, small counters/dice - anything around 0.5cm³)

An assortment of household tools. You could use chopsticks, tweezers, a fork, a spoon, pliers etc.

2 plates or containers

A stopwatch, egg timer or similar

A blindfold (for the extension)



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Instructions

1. Work with a partner or by yourself if at home.
2. Fill one of your containers/plates with a single layer peas and sweetcorn (or alternative) at a ratio of about 5:1 (5 kernels of sweetcorn for every pea).
3. Choose one of your tools.
4. Partner A sets the timer for 30 seconds. Partner B chooses one of the tools.
5. Partner A starts the timer. Partner B has 30 seconds to move as many peas to the other empty container/plate as possible.
6. After 30 seconds, count how many peas are on the other container/plate. Score yourself 2 points for every pea. For every kernel of sweetcorn that is damaged or is in the wrong place, deduct 1 point.
7. Now swap over and let Partner B use a tool while Partner A times it.

Extension

Many robots are controlled autonomously. This means that they are sent a string of computer code to instruct them what to do. Giving and receiving these instructions can be quite tricky. To visualise this, Partner A chooses their favourite tool but this time puts a blindfold on. Partner B has to now give them careful instructions on how to move the peas. Once you've had a go, swap over. How did you find doing the task this time?

Questions

Which tool was the best and why? Which was the worst? Why do you think in this activity do you lose points if the sweetcorn kernels are damaged? How do you think the word precision relates to this task?