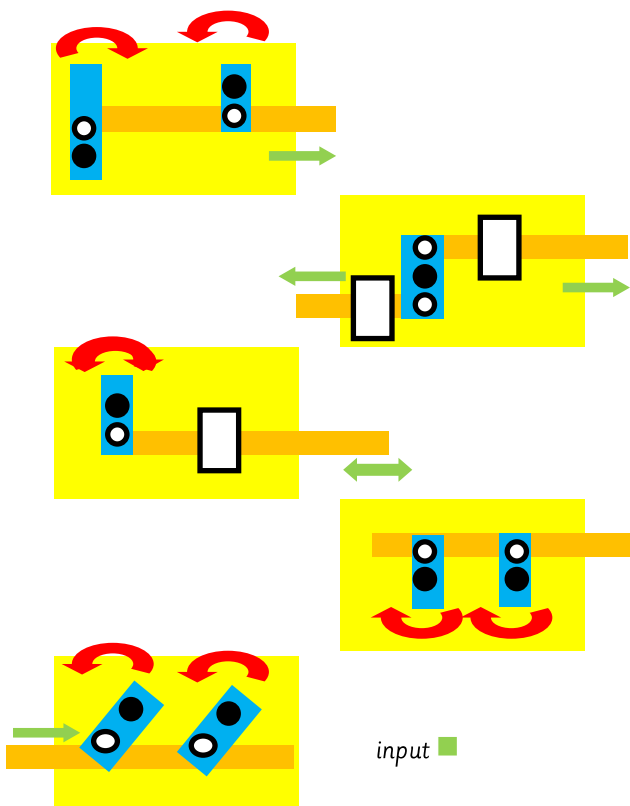




# THE DESIGN CHALLENGE

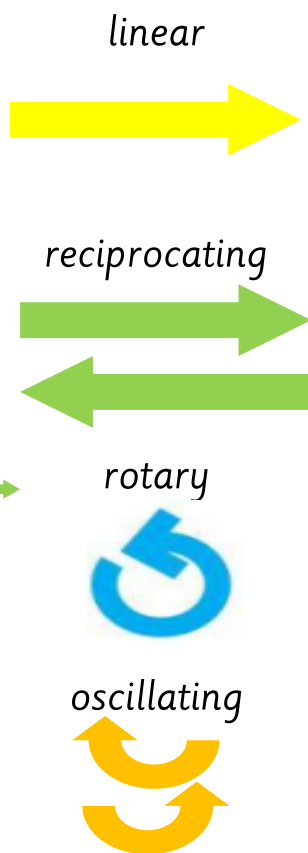
Can you make a moving poster inspired by your favourite book?

## Levers and linkages



- input ■
- output ■
- fixed point ●
- loose point ○

## Types of movement



## Glossary

mechanism	a device used to create movement
lever	a rigid bar that moves around a pivot
linkage	joined to one or more levers to create movement
input movement	movement that is put in, taken in or operated on by any process or system.
output movement	the amount of something that is produced by machinery, a person or industry
pivot	a fixed part that holds a lever in place as it turns.





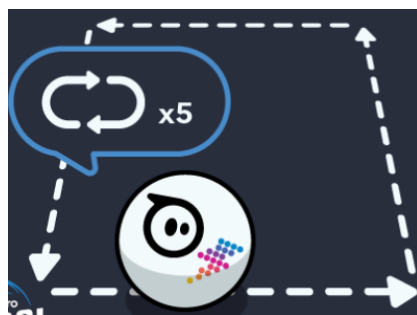
Can you use technology to aid with storytelling?

## Looping Sphero BOLT

```

on start program
loop 4 times
  roll 0 at 60 speed for 2s

```



**Synchronous** - one action at a time

```

on start program
speak Wait to turn on the light and wait
main LED

```

**Asynchronous** - multiple actions at a time

```

on start program
speak Turn on the light and continue
main LED

```

algorithm	A process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer.
debugging	The process of identifying and removing errors from computer hardware or software.
input	Signals or data that is received by a computer to give it an action
output	How a computer presents what has been inputted (on the screen, printing etc.)
coding	The process of writing a computer program
looping	A series of instructions that are continually repeated.
device	Something made of adapted for a particular purpose



Sphero BOLT  
How do you loop?



BBC Bitesize  
What is debugging?

