Servo motors
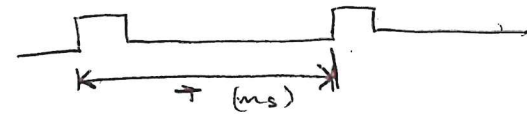
- A servo motor is a small rotating position control Actuator
- The ones in your kit are 180° servo motors
  - we can use these to close & open gates, control arms or buckets etc.
- Can be set using PWM signals
  - period depends on servo motor (datasheet)
- PWM pulse width determines position
  - alternately, you can use digital outs to turn all the way on or off (less desirable)

1ms

1.5 ms

2ms

0 degrees

90 degrees

180 degrees

Servos are good for:
  - controlling position where high torque is not needed
  - opening and closing

Servos are bad for
  - driving wheels
  - high torque position control)

□ EX: If PWM T = 20 ms, use the data sheet to take the servo from 0 degrees, to neutral (90 degrees) to 180 degrees, in between each step should be 9 second.
  - repeat indefinitely.

- In your group, brainstorm ways that the servo might be used on your robot.