

CP316 Servo Control

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Servo Operation

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- typically rotate less than 360°

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- about 180° is common
- can be built (or modified) for continuous rotation

Details

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Three wires

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- power (usually 5V)

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- ground
- control (PWM)

Control signal

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(i.e. 20ms)

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- neutral position at 1.5 ms

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- one limit at 1.0 ms
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Note the duty cycle never gets close to 100%.

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If modified for *continuous* rotation

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- *maximum speed in one direction* corresponds to the *left* limit
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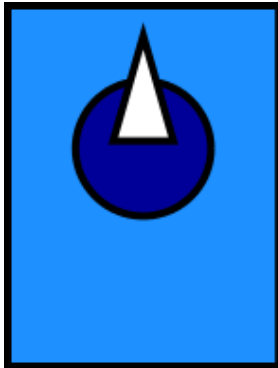
Control signal (continued)

If modified for *continuous* rotation

- *stopped* corresponds to the *neutral* position
- *maximum speed in one direction* corresponds to the *left* limit
- *maximum speed in the other direction* corresponds to the *right* limit

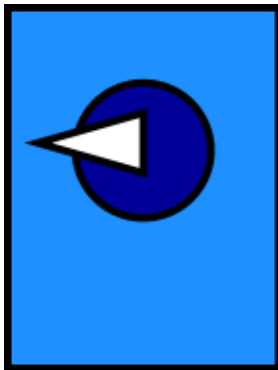
Note the duty cycle still never gets close to 100%.

Servo motion



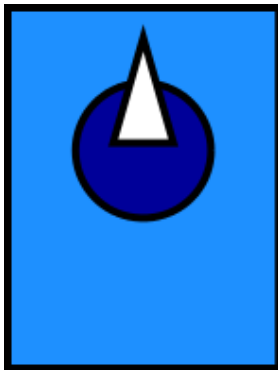
Neutral position

Servo motion



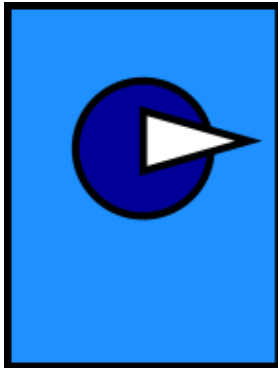
Left limit

Servo motion



Neutral position

Servo motion



Right limit

Servo signal



Signal for neutral position

Servo signal



Signal for one limit

Servo signal



Signal for neutral position

Servo signal



Signal for other limit

Note

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- Duty cycle is much less than 100%,

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at *either* limit

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Driving the motor beyond limits will eventually damage it.