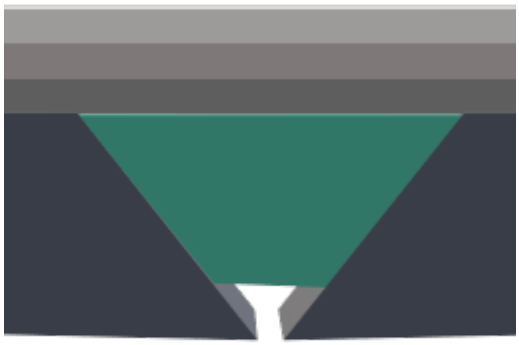
User manual

https://github.com/KHTjessem/styresystem_for_georigg



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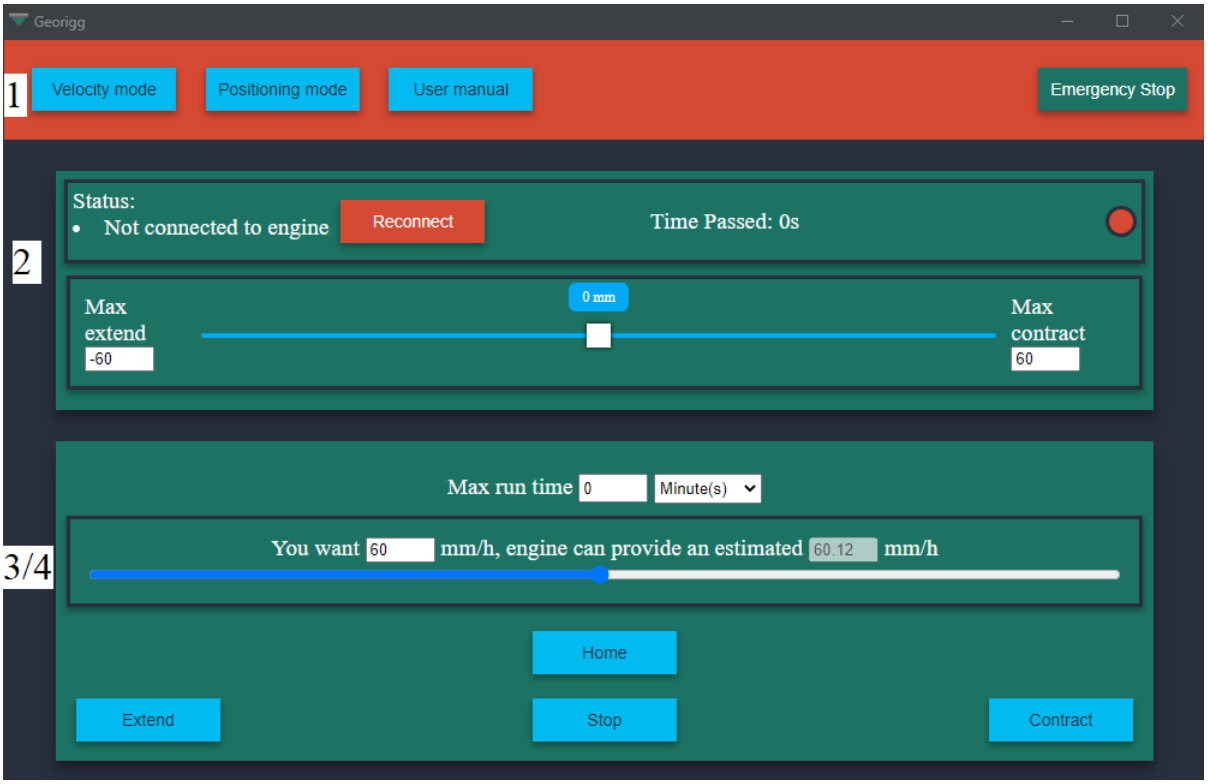
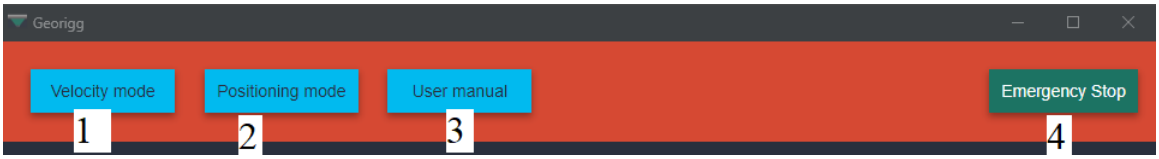
Overview



- 1: Navigation bar and stop button.
- 2: Status panel.
- 3/4: Mode panel
  - 3: Velocity mode panel.
  - 4: Positioning mode panel.

1 Navigation bar



1.1 Velocity mode button

Changes the displayed mode to velocity mode.

1.2 Positioning mode button

Changes the displayed mode to Positioning mode.

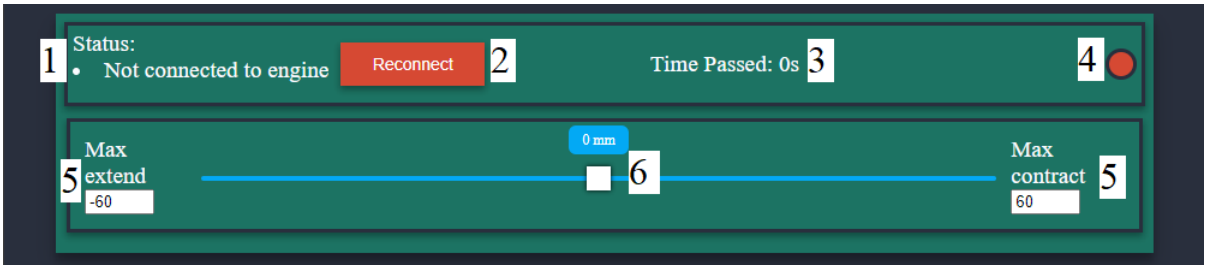
1.3 User manual button

Opens up this user manual

1.4 Emergency stop button

An always accessible stop button.

2 Status panel



2.1 Status text

Shows the current status of engine or software. List below has some examples, i.e. *Extending* shows the engine is running. Also informs if the engine is connected.

- Extending: The engine is running.
- Contracting: The engine is running.
- Stopped: Engine is not moving.

2.2 Reconnect button

This button is only visible if the engine is not connected. Clicking the button causes the program to attempt to establish an new connection to the engine.

2.3 Indicator light

- Red: Not connected/something wrong.
- Green: Ready for use.
- Blue: Engine is running.

2.4 Time passed

Shows how long the engine has been running. Starts counting on button press.

2.5 Max extend and max contract

The position is given as a displacement from the home position. Home position is 0mm.

Max extend: Set a limit in millimeters of max extension. The position will not go below this value. If number is 0mm the software will not stop the engine.

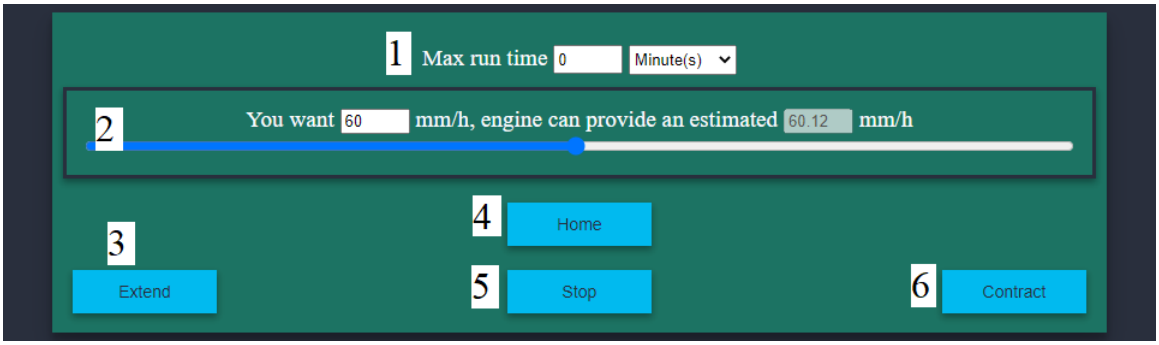
Max contract: Limit in millimeters the position will not exceed.

Important This feature only works when the engine is connected. If the engine is disconnected during operation it will not stop, even if it has reached the limit. The engine will stop upon reconnecting if the limits are reached.

2.6 Position display

A visual representation of the movable blocks position. The blue box has distance moved from home position in millimeters. Extending moves the position to the left, blue box value decreases. Contracting moves the position to the right, blue box value increases.

3 Velocity mode



3.1 Max running time

The software will stop the engine once the run time has reached the given value. With the drop down box one can choose if the number given is in seconds, minutes or hours. A value of 0 means there is no limit.

It starts counting when one press either the *Extend* or *Contract* button. This means if the button is pressed whilst running, it will start counting form zero again.

Important: If the engine disconnects, the software as of writing this, loses track of time and will not be able to stop it on the right time when reconnected. On a reconnect it starts counting from zero.

3.2 Speed selection

There are two options for selecting speed, a slider or input box.

Slider: Drag the slider to the position you want. The sliders value is put into the above input box. The engine can probably not provide the specified speed therefor the next box shows the calculated speed the engine can provide. There is still deviation in the speed from the linear module. The sliders value range is 1-120 mm/h

Input box: Input a speed in millimeter per hour. This input box has no maximum limit, instead the limit is the maximum value the engine can provide, 343mm/h at current application settings.

3.3 Extend

This starts the engine with the speed chosen above. Extend will cause the movable block to move towards the engine. The middle block goes down.

3.4 Home

Engine will move to home position (0mm). The speed of this button is set to about 5.6 mm/min.

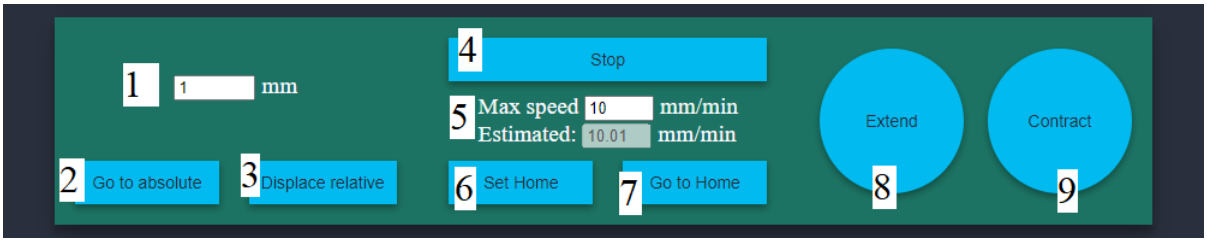
3.5 Stop

Simply stops the engine where it is.

3.6 Contract

Start the engine with chosen speed. Contract will cause the block to move away from the engine. The middle block rises.

4 Positioning mode



4.1 Positioning with absolute and relative values. 1, 2 and 3.

1: Input box, set an amount in millimeters that the two buttons below will use. Can use negative value.

2: Clicking this button will move the engine to the absolute position given in input box 1. The position is millimeters from home position (0mm).

3: This button moves with relative value. Example, if the engine is at position 3mm, moving relative with 1mm will move it to 4mm. Or if it was -0.5mm it would move to 2.5mm.

4.2 Home positioning and speed selection. 4, 5, 6, and 7.

4: Stops the engine.

5: Max speed is the speed at which the engine will run at during positioning mode. Input what speed you want, box below contains the calculated speed engine can provide. Only the two large round buttons are exempt from this speed in positioning mode.

6: Clicking this will set the current position to be 0mm.

7: This button moves the engine to home position (0mm).

4.3 Hold buttons for visual adjustments.

8: Click and hold this button to move the engine in the extend direction. The speed is set to a fixed slow speed. Useful for moving with ones vision. Release the button to stop.

9: Works like 8 except in other direction. Hold to move, release to stop.