



Operating Instructions for an automated steel lifting and conveying system

HUY: 714-325-8762

NGOC: 714-728-9287

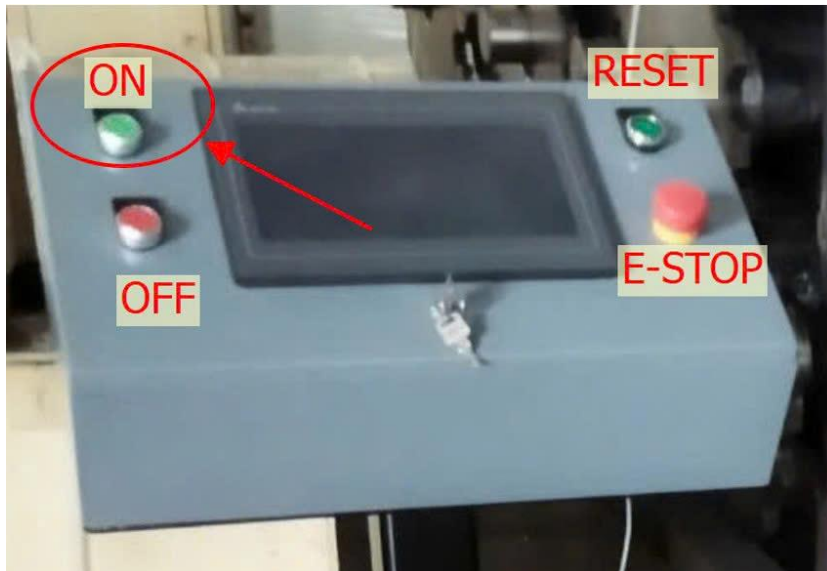
THANH: 714-366-9957

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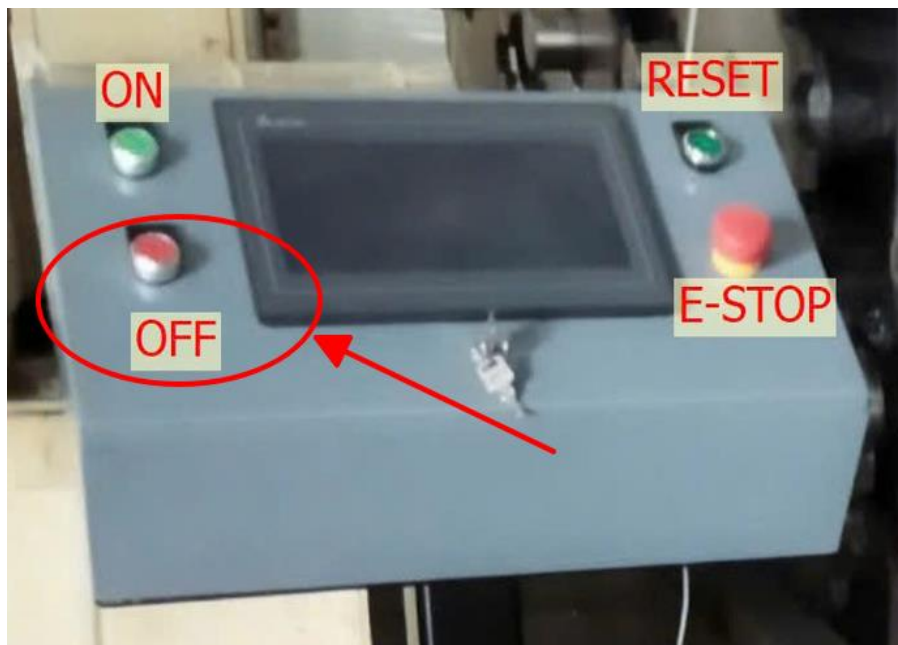
1. Turn on the system

- Please check everything one more time, then release the E-Stop and press the ON button.



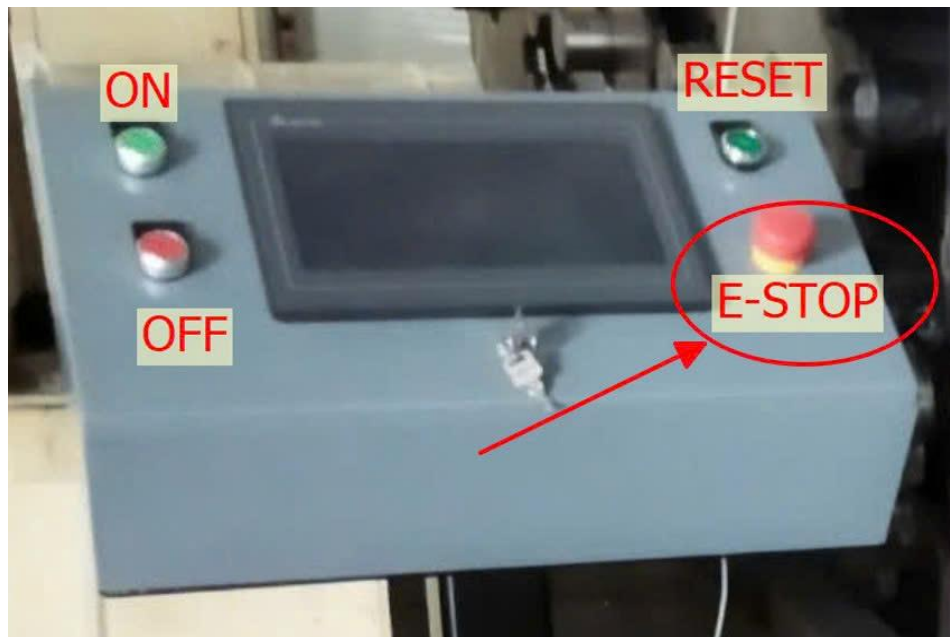
2. Turn off the system

- When you want to shut down the system, press the OFF button.



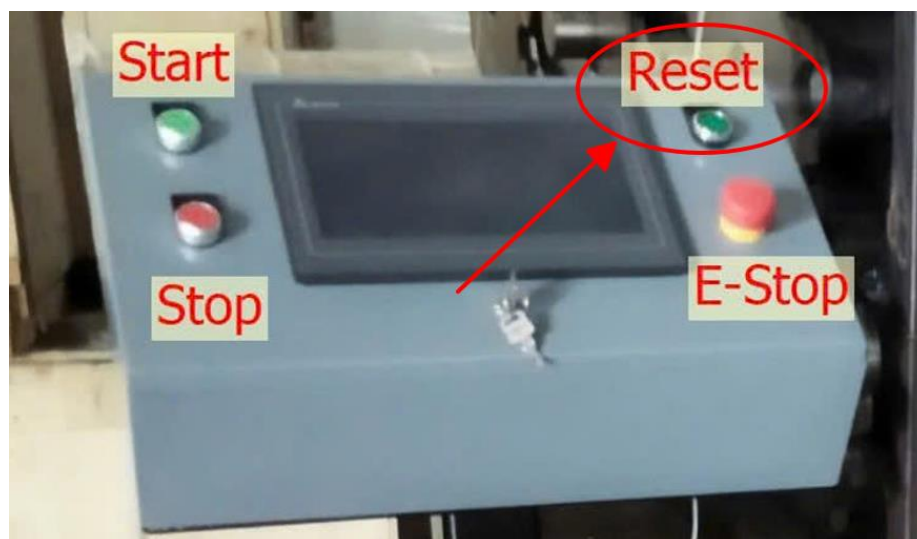
3. Emergency Stop

- If the system encounters a problem, press the E-STOP button.



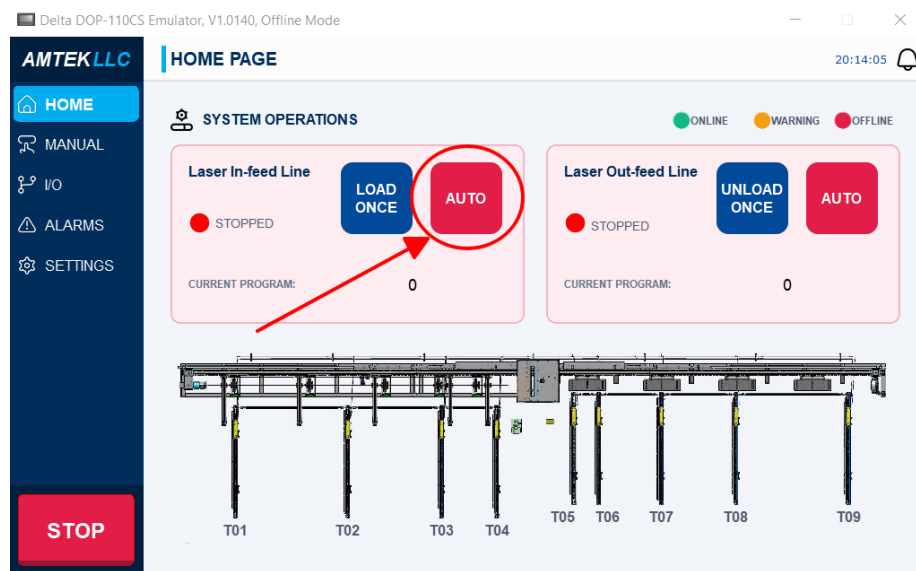
4. Reset Button

- When a system error occurs, fix the problem first. Then press the Reset button to clear the error and restart the system.

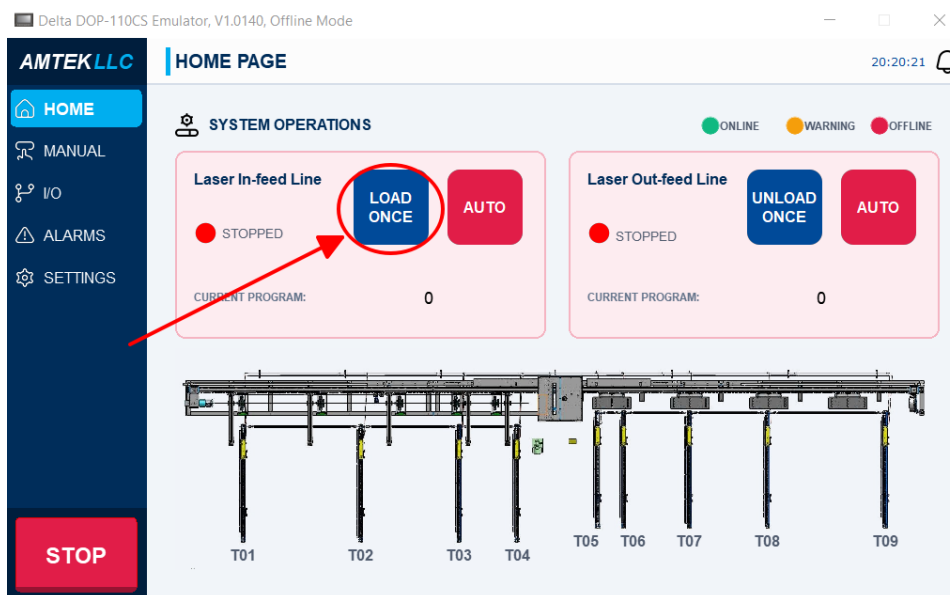


5. Home Page on HMI

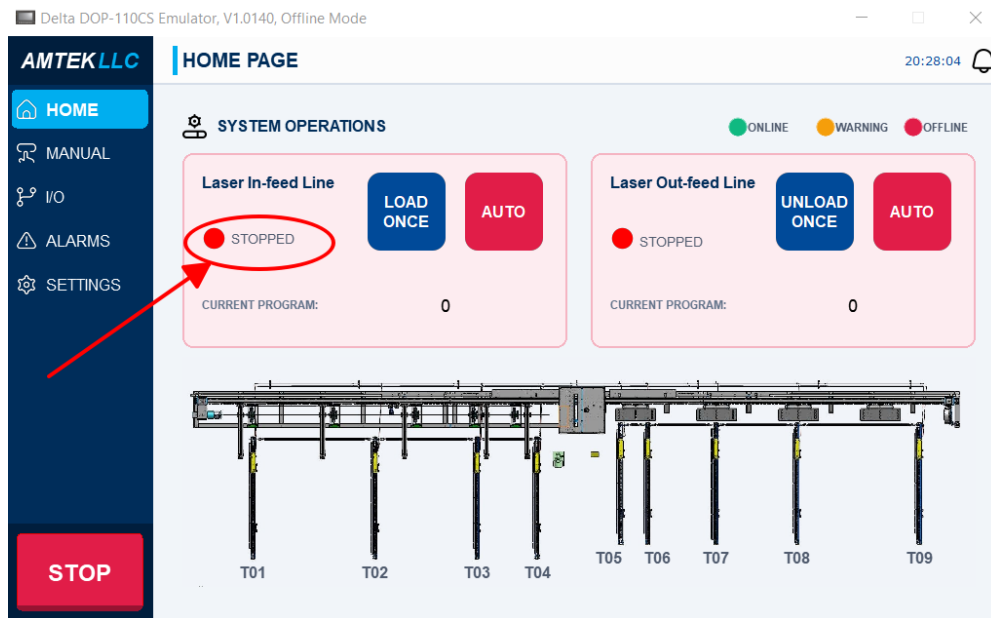
- AUTO Button InFeed: To start the InFeed in Auto mode, press the AUTO button.



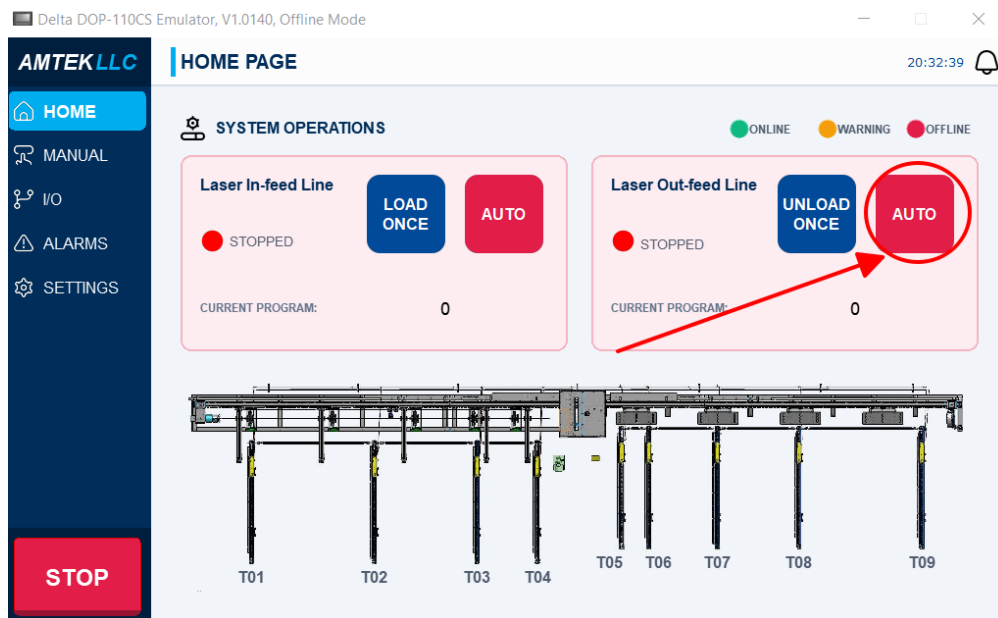
- LOAD ONCE Button - InFeed: To run a single cycle of the Infeed, press the LOAD ONCE button



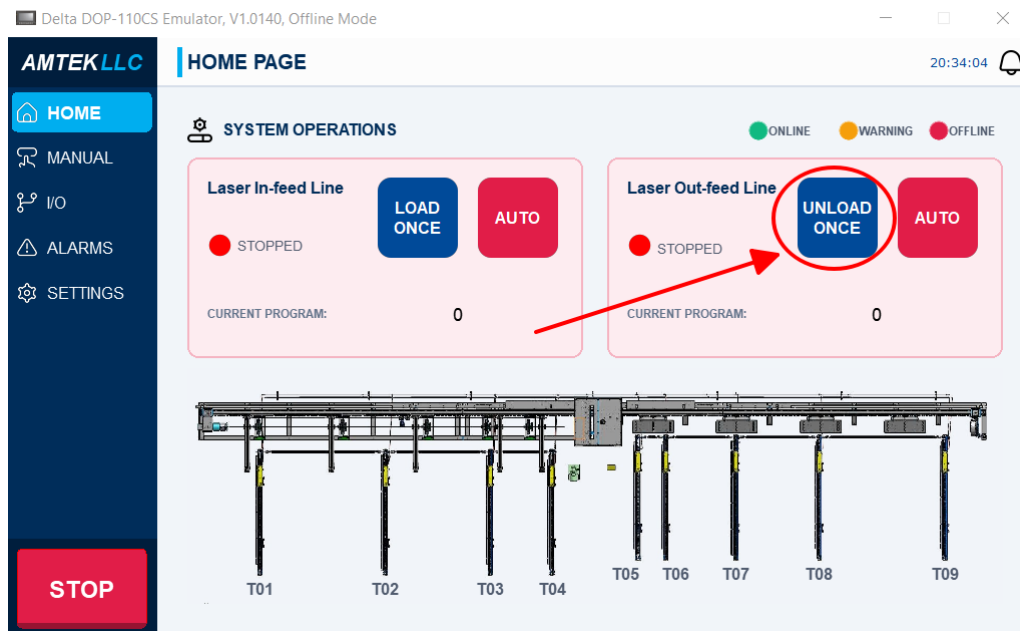
- STOPPED, RUNNING, WARNING: It is a display showing whether the Infeed is running, stopped, or in an error state.



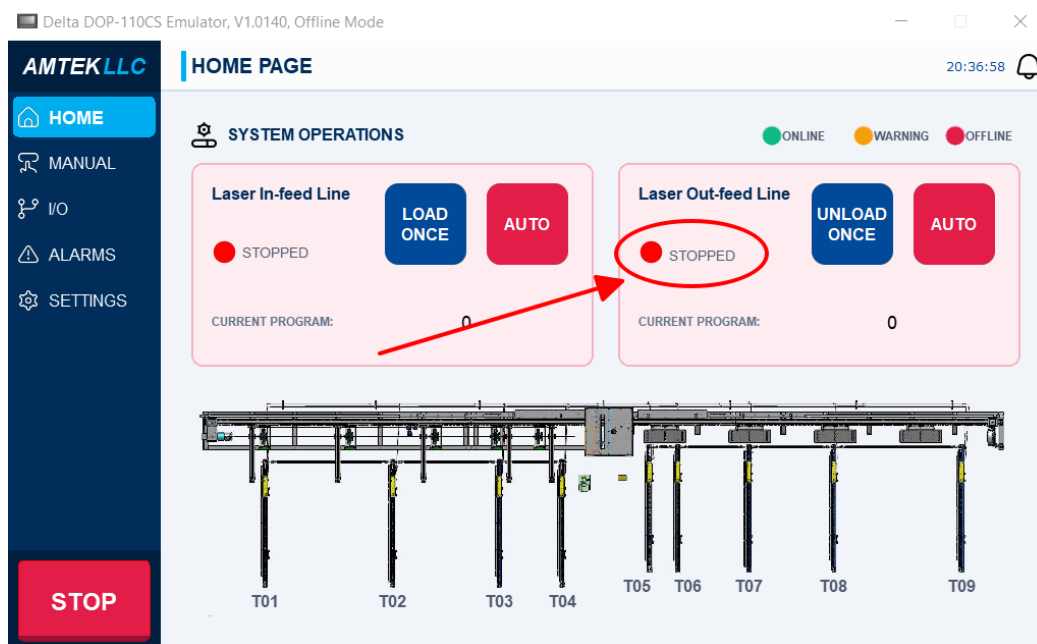
- AUTO Button OutFeed: To start the OutFeed in Auto mode, press the AUTO button.



- UNLOAD ONCE Button - OutFeed: To run a single cycle of the Outfeed, press the UNLOAD ONCE button



- STOPPED, RUNNING, WARNING: It is a display showing whether the Outfeed is running, stopped, or in an error state.



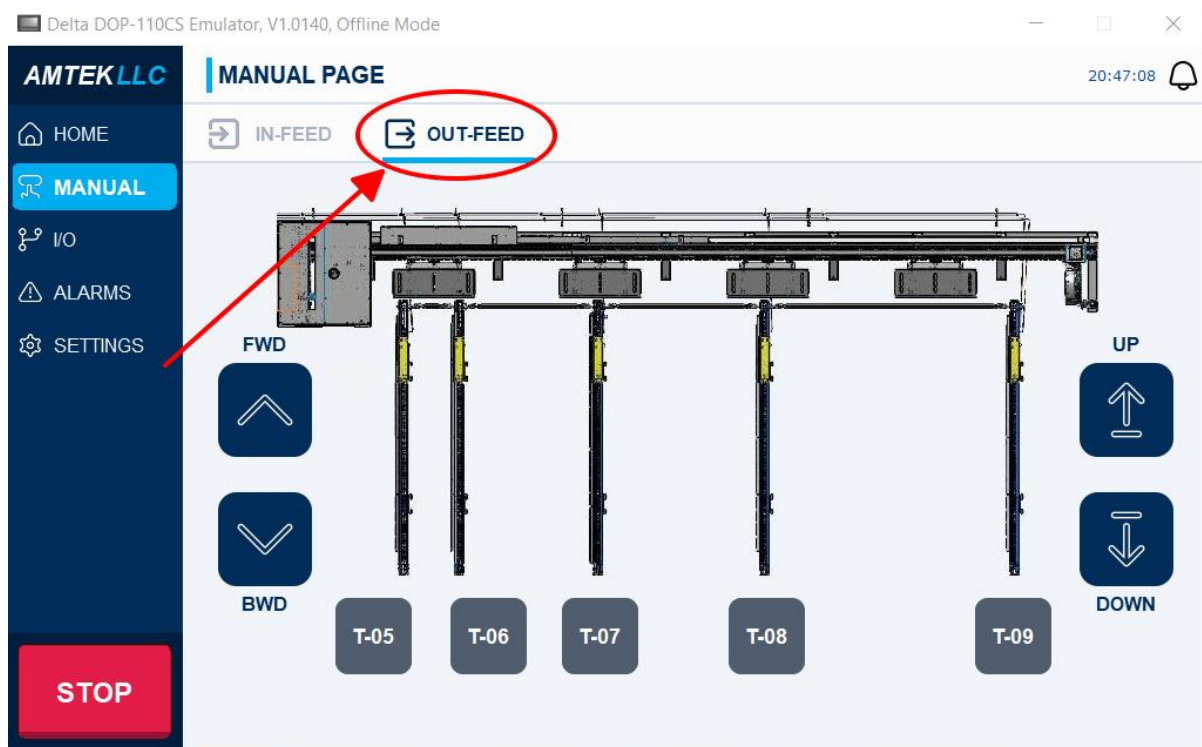
6. Manual Page on HMI

- Manual In-Feed



- + FWD: The system runs in the forward direction.
- + BWD: The system runs in the reverse direction.
- + UP: The selected system will lift.
- + DOWN: The selected system will Lower.
- + T-01 -> T-04: Select the system to lift or lower.

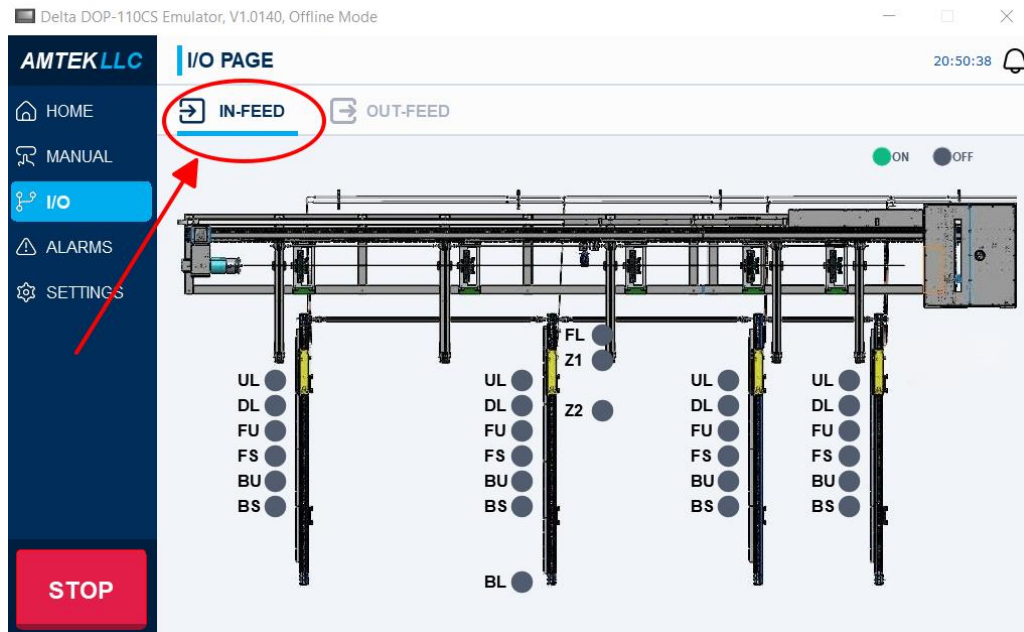
- Manual Out-Feed



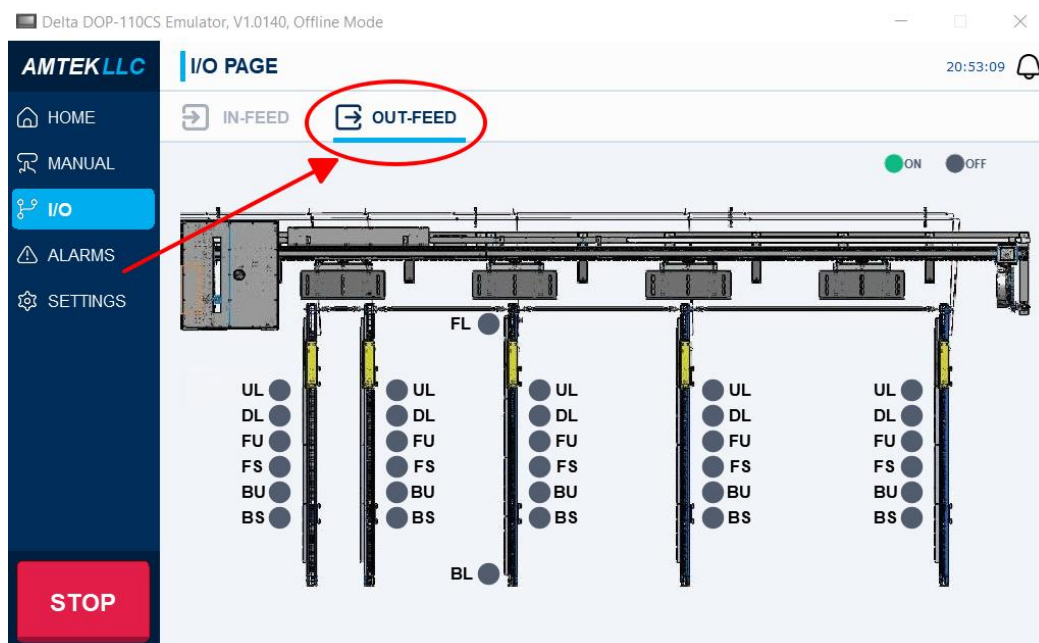
- + FWD: The system runs in the forward direction.
- + BWD: The system runs in the reverse direction.
- + UP: The selected system will lift.
- + DOWN: The selected system will Lower.
- + T-05 -> T-09: Select the system to lift or lower.

7. I/O Page on HMI

- I/O In-Feed: Used to check the Infeed signal status.

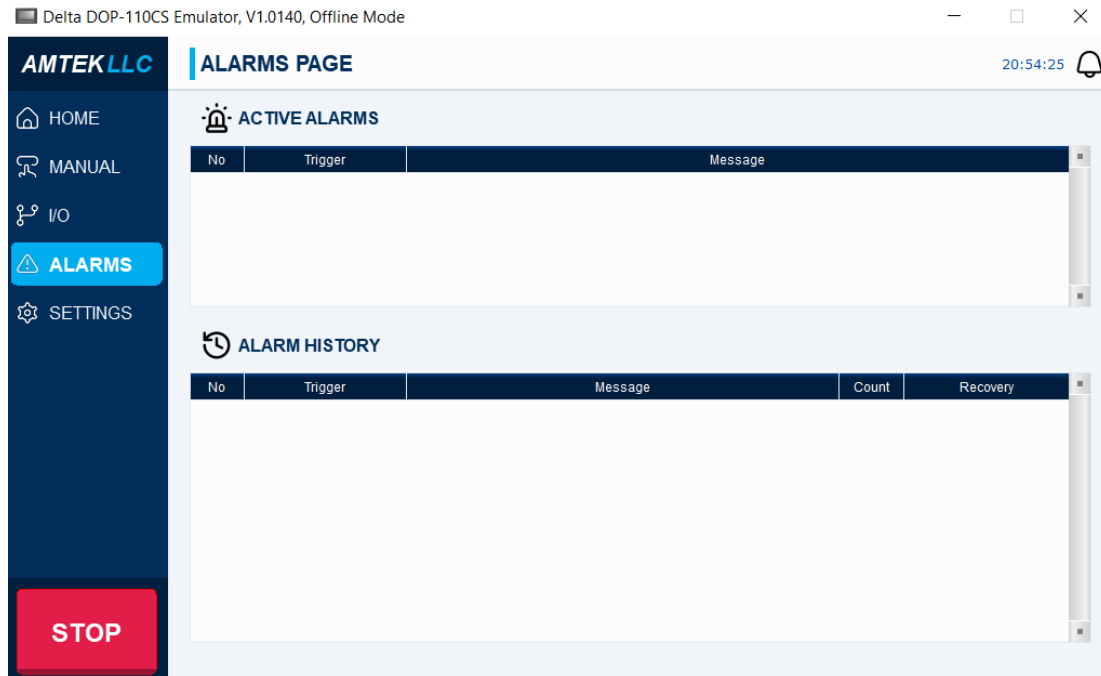


- I/O Out-Feed: Used to check the Outfeed signal status.



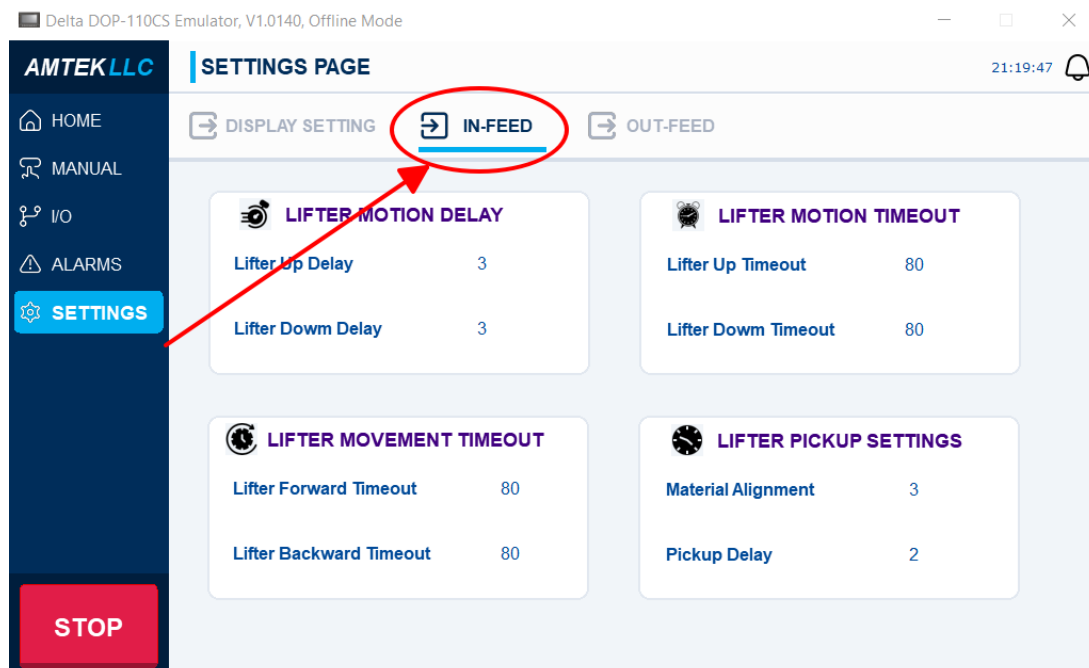
8. Alarms Page on HMI

- Used to display the current error status and error history.



9. Settings page on HMI.

- Setting In-Feed:



. Lifter Motion Delay

- + Lifter Up Delay: 5 (x 100 ms)
- + Lifter Down Delay: 5 (x 100 ms)

Note: When the lifting system is raising or lowering and reaches the limit switch, it will continue running for the preset time specified in the corresponding field and then stop.

. Lifter Motion TimeOut

- + Lifter Up TimeOut: 80 (x 100 ms)
- + Lifter Down TimeOut: 80 (x 100 ms)

Note: When the lifting system is raising or lowering, if the preset time is exceeded, the system will trigger an alarm.

. Lifter Movement TimeOut

- + Lifter Forward TimeOut: 80 (x 100 ms)
- + Lifter Forward TimeOut: 80 (x 100 ms)

Note: When the system is running in the forward or reverse direction, if the preset time is exceeded, the system will trigger a fault alarm.

. Lifter Pick Settings

- + Material Alignment: 3 (x 100 ms)

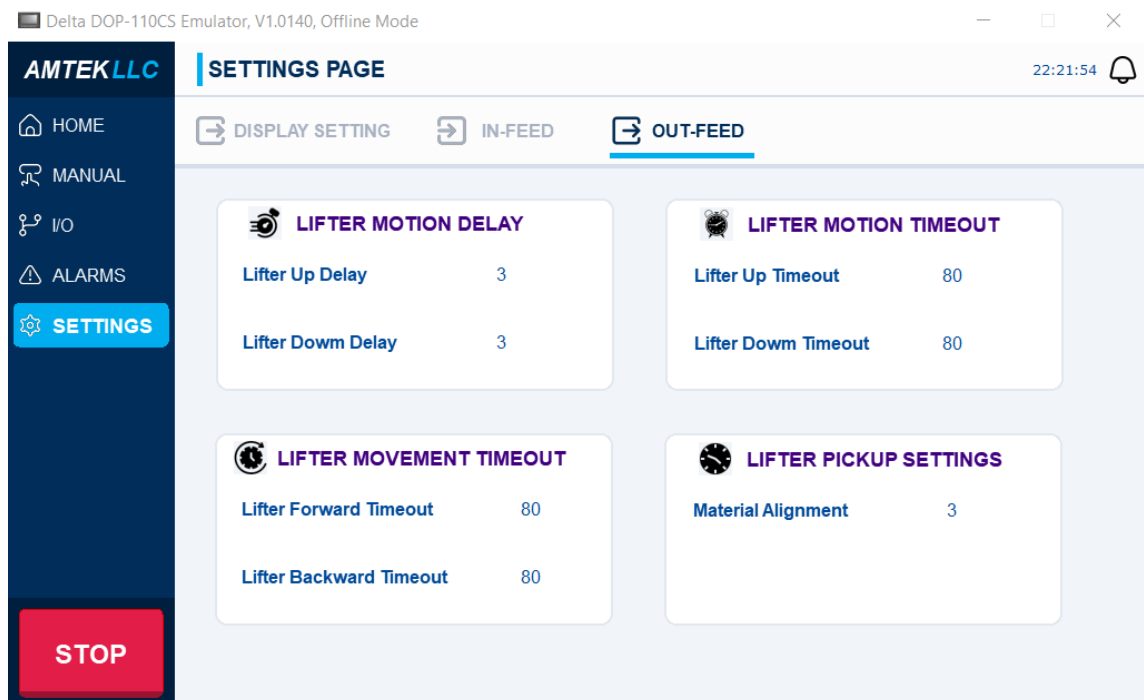
Note: When the system is running reverse. to search for the material, if the material is detected to be misaligned, the system will run in reverse until the sensor no longer detects the material. It will then

start the timer, and after the preset time has elapsed, the system will stop.

+ Pickup Delay: 2 (x 100 ms)

Note: After running in reverse to lift the steel and feed the material into the machine, if a gap is detected during the reverse movement, the system will run forward for the preset time and then lift the material.

- Setting Out-Feed:



. Lifter Motion Delay

+ Lifter Up Delay: 5 (x 100 ms)

+ Lifter Down Delay: 5 (x 100 ms)

Note: When the lifting system is raising or lowering and reaches the limit switch, it will continue running for the preset time specified in the corresponding field and then stop.

. Lifter Motion TimeOut

- + Lifter Up TimeOut: 80 (x 100 ms)
- + Lifter Down TimeOut: 80 (x 100 ms)

Note: When the lifting system is raising or lowering, if the preset time is exceeded, the system will trigger an alarm.

. Lifter Movement TimeOut

- + Lifter Forward TimeOut: 80 (x 100 ms)
- + Lifter Forward TimeOut: 80 (x 100 ms)

Note: When the system is running in the forward or reverse direction, if the preset time is exceeded, the system will trigger a fault alarm.

. Lifter Pick Settings

- + Material Alignment: 3 (x 100 ms)

Note: When the system is running reverse. to search for the material, if the material is detected to be misaligned, the system will run in reverse until the sensor no longer detects the material. It will then start the timer, and after the preset time has elapsed, the system will stop.

9. Stop Button

- Used to stop the program during operation.

