



cinetics®

Lynx
Instruction Manual

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1.0 INTRODUCTION

Thank you for purchasing the Cinetics Lynx system. Lynx is an ultra smooth camera slider and multi axis motor control system. It's a master of time-lapse and can make precision video moves. It can also be used for animation, visual effects, and panoramic photography.

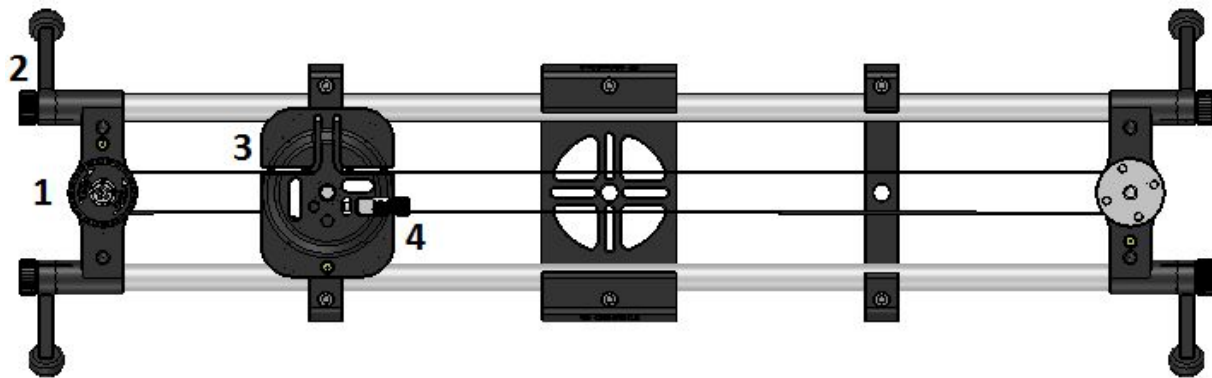
Please refer to the Lynx Setup video and the Cinetics Forum for more information:

<https://vimeo.com/cinetics/lynxsetup/>

<http://forum.cinetics.com/>

2.0 HARDWARE

2.1 Slider



1. **Brake** - Turn clockwise to tighten and lock slider cart in place. Turn counterclockwise to loosen and enable motion.
2. **Leg** - Loosen knob and turn leg out so that white dash marks align, or fold up the legs for storage.
3. **Cart** - Attach camera mount to the center $\frac{3}{8}$ -16 thread. You can use any tripod head like a ball head, fluid head or pan and tilt head.
4. **Tensioner** - Turn clockwise by hand until the belt is fully tightened. Only use a tool to loosen belt by turning counterclockwise, over-tightening could damage belt.

Slider Belt - The slider comes ready to attach the slider motor. For manual slider moves without motor control, removing the belt helps make the slides especially smooth. To remove the belt, first loosen the tensioner, then stretch the belt to its longest to remove the belt from the peg. You may need to slide the heat shrink tubing on the end of the belt back slightly to make the belt end loop larger.

Slider Extension - Slider extension rails are inside the zipper pouch in the back inside of the slider case. Attaching these carbon fiber rails increases the slide length to 48 inches. Because there is a seam between the rails, we recommend using the rails for timelapse photography and to take care when filming video. Single length 48 inch rails are available optionally.

3.0 USER INTERFACE

The controller comes with an 5 button keypad using UP, DOWN, LEFT, RIGHT and SELECT buttons. The round button closer to the screen is the MENU button which usually works as a 'back' button as well.

3.1 Main Menu

When the controller first turns on you should be at the MAIN MENU, from here you can navigate UP and DOWN to the PRESETS, PROGRAM MOVE, MANUAL MOVE or SETTINGS menus.

3.2 Fire Test Shot

If you navigate to the SETTINGS menu you can plug in the shutter cable to your camera and check the shutter function by pressing RIGHT on "FIRE TEST SHOT"

3.3 Backlight

Also in the SETTINGS menu you can adjust the time before the backlight dims by adjusting the BACKLIGHT setting to 30s, 1m, 5m or OFF.

3.4 Bluetooth

The controller also is always ready to connect to the Lynx app, if you wish you may find in the SETTINGS menu the option to turn BLUETOOTH to ON or OFF.

3.5 Reset

In the SETTINGS menu you also have the option to reset the controller by navigating the RESET tab and pressing the RIGHT button, this reset will not erase your currently saved custom keyframes or custom controller name.

3.6 Motor Sleep

In the SETTINGS you also have the ability to set the MOTOR SLEEP, this setting enables a participating wake and sleep interval for the motors power consumption which you can set to either ON or OFF.

3.7 Torque

For lighter cameras you may consider selecting a lower torque setting which will have a longer battery consumption. The TORQUE setting found in the SETTINGS menu and you can adjust this setting to LOW, MED or HIGH. On reset the controller will default this setting to HIGH.

4.0 USING THE LYNX

There are 3 basic modes for running the LYNX, you can run a PRESET, you can use a MANUAL MOVE or set up a timelapse using one or more keyframes in the PROGRAM MOVE tab. This section covers the Preset and Manual Move.

4.1 Using Presets

When the controller starts on the MAIN MENU the first selection is for the PRESETS. Pressing the SELECT button when the PRESETS tab is highlighted will prompt you to move to the "Home" position. Use the keypad to adjust the motors so that the camera is in the center of the slider and facing forward. This is the "Home" position. Use the provided picture of the "Home" position as a guide. When the camera is in the "Home" position, navigate to "DONE" and press SELECT.

At this point you can choose a factory installed preset (STARS, SUNSET, PANORAMA or INTERVIEW) or one of three custom presets from list. When the chosen preset tab is highlighted press SELECT to start running the preset. Or you can press MENU to escape back to the MAIN MENU.

4.2 Using Program Move

This section will cover setting up start and end points for one or more keyframes.

1. MOVE TO START

- a. Use keypad to adjust motor positions to a selected start point.
- b. Navigate the menu to SET START POINT and register your selected starting point for your 1st keyframe.

2. MOVE TO POS.2

- a. Use the keypad to adjust the motors to an end point for your 1st keyframe.
- b. Navigate to SET KEYFRAME and register your selected end point for your 1st keyframe.
(If you select a 2nd keyframe, this will also be your starting point for the 2nd keyframe.)

(4.2 Using Program Move *continued*)

3. Keyframe settings page ("Keyframe1 -2...")

- a. Select ADD KEYFRAME to return to step 3 and continue setting up more keyframes.
- b. Select SAVE PROGRAM to save keyframe(s) data to 1 of 3 storage locations.
- c. Select RUN to run keyframe(s) using selected settings.
- d. Select EXIT TO MAIN MENU to choose to abandon selected keyframe(s) and settings.

4.3 Using Manual Move

Once you connect your motors to the controller, navigate to MANUAL MOVE and press the SELECT button.

Here you can set the motor speed settings from 1% to 100%. Then if you navigate to RUN and press select you will go to the move motors using keypad. Press the SELECT button to choose if navigating with the LEFT/RIGHT buttons adjust the pan motor or the slider motor. TILT is always controlled by the UP/DOWN buttons.

Press the MENU button to exit back to set motor speeds and press the MENU button again to exit back to MAIN MENU.

5.0 RECORDING MODES

There are two major factors to calculate when setting up a keyframe, the interval and the run time. If you want a time lapse video 15 seconds long at a common rate of 24 frames per second you will need 360 total frames.

24 frames per second x 15 seconds = 360 total pictures

So your interval will occur 360 times, and if you want a picture taken every 3 seconds your total runtime will be 1080 seconds or 18 minutes

360 total pictures x 3 second intervals = 1080 seconds or 18 minutes run time

5.1 Run Time

When first entering the settings for the keyframes, the first highlighted tab will be the total run time. It helps to have an intended timelapse interval setting in mind when selecting the runtime. The default total run time is 1 hour.

5.2 Move Type

Select a MOVE TYPE for your keyframe, CONT (Continuous) will run the camera at a constant speed for the entire duration of the RUN TIME. SMS (Shoot-Move-Shoot) will remain in one place for the duration of a shutter opening and closing and move to the next position after the shutter closes. This is recommended for longer exposures to avoid blurriness. The default move type setting is CONT mode.

6.0 SETUP STYLES

This section covers the selection of the intervals and the shutter speed. The most important part of the relationship between these two settings is the shutter speed must always be lower than the interval.

6.1 Intervals

When selecting an INTERVAL for your keyframe you are also setting the number of photos to be taken. This setting controls the time in between opening of the shutter. The default setting for the intervals is 30 seconds.

6.2 Shutter Speed

The shutter speed is the time the shutter is open at the given setting. The default shutter speed is 0.5 seconds. The time for this setting is not added on to the interval time, so the shutter speed must always be set lower than the interval.

When using CONT mode the shutter will move during time the shutter is open, using SMS will keep the camera in one position while the shutter is open and will move to the next position when the shutter closes.

7.0 MOVE STYLES

Two settings you can add which will affect you timelapses are the bulb ramp and the move ramp. The bulb ramp is a function of the shutter speed and the move ramp is a function of the motor speeds.

7.1 Bulb Ramp

BULB RAMP can be set from "OFF" to "60.0". This is a method by which the exposure length of your images is changed as your timelapse progresses. This is useful when taking pictures of changing brightness levels such as a sunset or sunrise.

7.2 Move Ramp

MOVE RAMP can be used when using CONT mode. This is on a scale of "OFF" to "50%". For running multiple keyframes which run at different speeds, this will affect a selected percent of the keyframe which will have one keyframe speed adjusting to the next keyframe speed.

For example: If keyframe1 runs at a constant speed and keyframe2 runs at a speed twice as fast as keyframe1, and if MOVE RAMP is set to "25%", then the last 25% of keyframe1 and the first 25% of keyframe2 will adjust the speed gradually rather than experiencing an abrupt speed change.

8.0 MOBILE APP

Hello, thank you for downloading the Cinetics Lynx Mobile App. This manual will help you get connected and run your Cinetics Lynx Controller for video and timelapse photography using the downloadable app from the mobile app store.

8.1 Getting Connected

When the app first opens you will be on the Motor Control page. In the top right corner of the app you will see a bluetooth icon, click on that icon and find the Cinetics Lynx Controller in the available broadcasting bluetooth devices.

Tap “Connect” on the far right and give your controller a custom name if you’d like. After you rename your controller it will restart and you may now reconnect to your Cinetics Lynx Controller with your using custom name.

8.2 HARDWARE

Any iPhone 4 or later and any Android device with a low energy bluetooth chip. This will connect with a Cinetics Slider or Pan/Tilt motors and camera with a 3.5mm remote shutter port and cable.

8.3 USER INTERFACE

- 8.3.1 Top and Bottom Tabs

On the top and bottom of all screens there will be 2 menu bars.

On top are the tabs which navigate between the app pages. The page options are Presets, Motor Control, Settings, Help and Connect.

On the bottom are:

- A Start button which will turn into a Stop button after a time lapse is started.
- A Keyframe counter which will help you keep track of which keyframe you are currently setting up.
- Also a Set Start Point button which will turn into a Set Keyframe button once a Start Point is set and then into an Add Keyframe button after a keyframe is fully set.
- Next to that is a Delete button which will erase all motor position and settings data for the current keyframe being set up.
- Also a reset button which will trigger a reset of the controller and will require reconnecting to the controller with the app.

- **8.3.2 Motor Control Page**

This page is on the tab second from the left, this is the Motors Controls Page which can be used for just running the motors and shooting live video. This section covers the features available for moving the motors while not running a time lapse.

- **Speed settings**

You have to ability to control the speeds of your motors, the app defaults to the top speed of "100" and the lowest speed setting is "1". This is useful is you want to fine tune a movement with slower motor speeds. The ability to set speeds is available on the controller as well and when a new speed is set with the app, the new speed will be updated on the controller's speed settings screen.

- **Accelerometers**

If you prefer using the app accelerometer to control the motors you may use the available accelerometer controls. The orange accelerometer button on the right side of the app controls the Pan and Tilt motors and the orange accelerometer button on the left controls the Slider and Tilt motors. You can use the button on the left to control the Slider and Pan motors simply being plugging the Pan motor into the port for Tilt on the controller.

- **Pan\Tilt, Slider Joystick**

The Pan\Tilt joystick on the Motors Control Page is on the right side of the screen and Slider joystick is on the left side of the screen. These control the direction and speed of your pan/tilt and slide motors. Using your thumb to move the joystick from the neutral (center) position moves the motors, the farther you move the joystick from its neutral position, the faster your motors moves. When you release the joystick and allow it to return to the neutral position, the motors decelerate and come to a complete stop.

- **Set Start Point, Set Keyframe**

This page also allows you to begin setting up keyframes for running timelapses. When the motors are adjusted to your desired starting position for a keyframe, tap the "SET START POINT" button on the bottom bar. When the button title changes from "SET START POINT" to "SET KEYFRAME" you are now ready to set the endpoint for your first keyframe. Once you've

adjusted your motors to you desired endpoint you may tap "SET KEYFRAME" and then you will go to the Setting Page(section 3.3).

- 8.3.3 Timelapse Settings Page

On this page you will set up parameters for you keyframes which make up your timelapse.

There are two major factors to calculate when setting up a keyframe, the interval and the run time. If you want a time lapse video 15 seconds long at a common rate of 24 frames per second you will need 360 total frames.

$24 \text{ frames per second} \times 15 \text{ seconds} = 360 \text{ total pictures}$

So your interval will occur 360 times, and if you want a picture taken every 3 seconds your total runtime will be 1080 seconds or 18 minutes

$360 \text{ total pictures} \times 3 \text{ second intervals} = 1080 \text{ seconds or } 18 \text{ minutes run time}$

- 8.3.3.1 Fire Test Shot

The Fire Test Shot button on the left hand side of the Settings Page can be used to make sure your shutter is properly connected to your camera.

- 8.3.3.2 Runtime \ Move Type

On the bottom right hand side of the screen you will see a clock dial. This is you total Runtime for your current keyframe. Tap on the HOUR, MINUTE or SECOND to navigate to the desired total runtime for your current keyframe.

The default value for this setting is 30 minutes.

Once your Runtime is set you should select a Move Type for your keyframe. Your options are CONT (Continuous) which will run the camera at a constant speed for the entire duration of the RUN TIME.

The other option is SMS (Shoot-Move-Shoot) which will remain in one place for the duration of a shutter opening and closing and move to the next position after the shutter closes. This is recommended for longer exposures to avoid blurriness.

The default move type setting is CONT mode.

- 8.3.3.3 Interval \ Shutter Speed

When selecting an INTERVAL for your keyframe you are also setting the number of photos to be taken. This setting controls the time in between opening and closing of the shutter. You can set the interval by tapping on the Interval numbers and navigating to your desired interval length.

The default setting for the interval is 5 seconds.

Next is the shutter speed, which is the time the shutter is open at the given setting.

The default shutter speed is 0.5 seconds.

Important Note: The time for this setting is not added onto the interval time, so the shutter speed must always be set lower than the interval. And when using CONT mode the shutter will move during time the shutter is open, using SMS will keep the camera in one position while the shutter is open and will move to the next position when the shutter closes.

- 8.3.3.4 Move Ramp

Move Ramp for your keyframes can only be used when using CONT mode. This is on a scale of "OFF" to "50%". For running multiple keyframes which run at different speeds, this will affect a selected percent of the keyframe which will have one keyframe speed adjusting to the next keyframe speed.

For example: If keyframe1 runs at a constant speed and keyframe2 runs at a speed twice as fast as keyframe1, and if MOVE RAMP is set to "25%", then the last 25% of keyframe1 and the first 25% of keyframe2 will adjust the speed gradually rather than experiencing an abrupt speed change.

- 8.3.3.5 Start \ Add Keyframe, Delete

After all of your desired settings are ready you now have one of two options. You can press Start and run the keyframe you've just set up, at this time the motors will go back to the start of keyframe one and start after a 20 second delay.

Or you can press Add Keyframe and go back to the Motor Controls Page and begin selecting an endpoint for Keyframe2, after which you repeat the steps in the Settings page where you again can start to add an additional keyframe.

- **8.4 Preset Page**

When the controller starts on the MAIN MENU the first selection is for the PRESETS. Pressing the SELECT button when the PRESETS tab is highlighted will prompt you to move to the "Home" position. Use the keypad to adjust the motors so that the camera is in the center of the slider and facing forward. This is the "Home" position. Use the provided picture of the "Home" position as a guide. When the camera is in the "Home" position, navigate to "DONE" and press SELECT.

At this point you can choose a factory installed preset (STARS, SUNSET, PANORAMA or INTERVIEW) or one of three custom presets from list. When the chosen preset tab is highlighted press SELECT to start running the preset. Or you can press MENU to escape back to the MAIN MENU.