Using a Drone to Survey Storm Damage: Drone Interface

Business Purpose: C&M Roofing has been in business eight years with a substantial increase in business over the last three years. They work with homeowners and insurance companies to evaluate roofing needs and fix or install new roofing to homes.

Recently the company has noticed that more roofs are unsafe and unstable when their employees go up to evaluate them. This results in wasted employee time as they have to find the best way to navigate a dangerous roof as well as potential employee injuries. The company has bought drones for each of their employees to use to survey and record roof damage.

The training will include a series of short videos to introduce the employees to the basics of using the drone. The goal of the video series is for the employees to be able to quickly integrate using drones to survey and document roof damage. This will be the second video in this series. The goal of this video is to increase the amount of employees who are able to use the drone interface to 100%.

Target Audience: This video's target audience are employees at C&M Roofing who have been asked to learn how to use the drone in order to survey roof damage after storms.

Learning Objectives:
By the end of the training, learners will be able to:
1. Identify the key components on the user interface.
2. Create a plan using the key components to accomplish a drone task.

Time: 3 min

Outline:
- Introduction
- Learning Objectives

- Take Off
- Landing
- Left Side Icons
- Right Side Icons
- Knowledge Check 1
- Top Left Menu
- Drone Data
- Drone Photography Controls
- Knowledge Check 2
- Conclusion

Color Palette:

Global Comments:
- All Scene Backgrounds are dark blue from the color palette.
- Neutral Audio plays the entire length of the video at 10 percent volume.
- Text in [brackets] should not appear on the slide or be recorded in voiceover (VO). This text indicates information for the developer including placement of transitions.
- Any time photos, videos, or other assets are mentioned below, use the assets in the folder provided by C&M Roofing.

Directions:
- As you review this Storyboard, pay particular attention to the tie from the previous video to this video,
- Any questions that are specific for reviewers are highlighted in <mark style="background:green">green</mark>. Any questions that reviewers have should be highlighted in <mark style="background:magenta">pink</mark>. All questions will be addressed before content creation begins.
- The text in the Narration/Voice Over Column will be narrated audio.

- - As you review this text, please be aware that there may be additional words needed to help the flow of the audio. Try reading it aloud and make any notes of changes when needed.
    - Any formatting to this text is used to help the voiceover talent. The voice over text will not be seen by the learners.
    - Capitalization in the text is not important as it is not seen by the learner.
  - Text in the Slide Text column requires correct capitalization, punctuation, and grammar as this will be seen by the learner.

Section: Introduction			
Visual/Display	Slide Text	Narration/Voiceover	Animation
Blue background- Applies to all scenes [1]C&M Logo- Medium in the middle of the screen when video starts [2]Title- Tan rectangle text box with blue writing in the middle of the screen. [3] Flying Drone Image	[2] Using a Drone to Survey Storm Damage	[2]Welcome back to our video series: Using a Drone to Survey Storm Damage. [3]Using drones to help survey and document roof damage will not only help keep you safe, but also save you time and increase productivity. In our last video we learned how to download the app and connect to the drone.	[1] Logo zooms to a large size in the middle of the screen. [2] Cube rotate to Title [3] Cube rotate to Flying Drone Image [4] Fade to next section
Notes:			

Section: Learning Objectives			
Visual/Display	Slide Text	Narration/Voiceover	Animation

[1] Title- Tan rectangle text box with blue writing in the middle of the screen [2] Bulleted List- Tan rectangle text box with blue writing in the upper left corner of the screen	[1] [Title] Drone Interface [2][Bulleted List] In this video you will learn how to ● Take Off ● Land ● Fly the drone	[2]In this video you will learn how to use the interface to take off, land, and fly the drone.	[1] Title fades onto screen [2] Title fades off with the bulleted list fading on. [3] All Cube Rotate off the screen at the end of the narration.
Notes:			

Section: Take Off			
Visual/Display	Slide Text	Narration/Voiceover	Animation
[1] Title- Tan rectangle text box with blue writing in the middle of the screen [1]Video- View of drone taking off [3] Interface Image- Takes up the majority of the screen [4]Sketch motion arrow pointing to Take Off Icon. [5] Take Off Blank Slider in the middle of screen [6] Take Off Green Slider in the middle of screen [7] Video- View from drone as it takes off	[1] [Title] Taking Off	[2]Once you have connected to the drone, you are ready to begin flying. Be sure to keep the safety rules we have previously covered in mind. You have two options to take off, Throw and Go or Launching from the Ground. We recommend you launch from the ground. [3]To take off you will press [4] the take off icon in the top left corner.[5] A slider will pop up in the middle of the viewing area. [6]You will slide the slider all the way to the right. [7]This will	[1] Cube rotate Title and Video [3] Fade in Interface Image then Zoom to top left corner of Interface. [4] Sketch motion arrow plays [5] Zoom out to full Interface Image. Take Off Blank Slider appears. Zoom In to the Take Off Blank Slider. [6] Slide right animation to reveal Take Off Green Slider zoomed in on the middle of the screen. [7] Zoom out Take Off Green slider then Fade Out Take Off Green Slider and Fade In video.

		launch the drone from the floor to a hover in the air.	

Notes:

Section: Landing			
Visual/Display	Slide Text	Narration/Voiceover	Animation
[1] Title- Tan rectangle text box with blue writing in the middle of the screen [1]Video- Drone Landing Video 1 [2] Interface Image- Takes up the majority of the screen [2] Video- Drone Landing Video 2	[1] [Title] Landing	[1]To land the drone, you will push the same button in the top left corner.[2] You will slide the slider to the right again. The drone will slowly lower to the ground.	[1] Fade in Title and Video [2] Fade In Interface Image and Drone Landing Video 2

Notes:

Section: Left Side Icons			
Visual/Display	Slide Text	Narration/Voiceover	Animation
[1] Title- Tan rectangle text box with blue writing in the middle of the screen [1] Interface Image- Takes up the majority of the screen	[1] [Title] Left Hand Controls	Now that we have covered taking off and landing, let's look at how to make the drone move. [2] The icons on the left side of the interface stand for [3]go up, [4]go down, [5]turn left, and [6]turn	[1] Fade in Title and Fade Out Drone Landing Video from previous scene. [2] Zoom in to Left Hand Control image.

Visual/Display		Narration/Voiceover	Animation
[3-6] Sketch Motion Circle [8] Red Arrow with point to the right [9] Video- Drone Turning Right Video		right. [7]You will slide your finger slowly [8] along the icon and toward [9] the outside of the circle to make the drone move. Be sure to slide very slowly to keep full control of the drone.	[3-6] Sketch Motion Circle draws on each icon as described in audio. [7] Zoom out to full Interface Image [8] Red arrow starts in the middle of the left circle on the Interface Image and slowly animates to the right until it reaches the outside of the circle. [9] Drone video starts

Notes:			

Section: Right Side Icons			
Visual/Display	**Slide Text**	**Narration/Voiceover**	**Animation**
[1] Title- Tan rectangle text box with blue writing in the middle of the screen [1] Interface Image- Takes up the majority of the screen [3-6] Sketch Motion Circle [8] Red Arrow with point to the top [9] Video- Drone Going Forward Video	[1] [Title] Left Hand Controls	The icons on the [2] right side of the drone interface stand for [3] go forward,[4] go backwards, [5] go straight left, and [6] go straight right. [7] Just like the left side you will [8] slowly slide your finger to the outside of the circle [9] to make the drone move. It is important that you take your time when moving your drone	[1] Fade in Title and Fade Out Right Video from previous scene. [2] Zoom in to Right Hand Control image. [3-6] Sketch Motion Circle draws on each icon as described in audio. [7] Zoom out to full Interface Image

		until you get used to using the interface. [10]	[8] Red arrow starts in the middle of the right circle on the Interface Image and slowly animates to the top until it reaches the outside of the circle. [9] Drone video starts [10] Interface shrinks to take up about ¼ of the screen positioned in the bottom left corner.
Notes:			

Section: Recap			
Visual/Display	Slide Text	Narration/Voiceover	Animation

[1] Title- Tan rectangle text box with blue writing in the middle of the screen.
 	
[1] Interface Image- Takes up the bottom left corner of the screen as left from the last scene.
 	
[2] Drone icon- small and placed under the title
 	
[2] Text Box 1- Scenario- Clear box with tan writing takes up the left half of the screen.
 	
[4] Text Box- Scenario Answer- Clear box with tan writing takes up the left half of the screen.
	[1] [Title] Recap
	
	[2] [Text Box 1]-
	Think About It
	How would you get the drone to turn to the left and then go forward?
	
	[4] [Text Box 2]-
	Think About It
	  1. Slide the Turn Left Icon.
	  2. Slide the Forward Icon.
		[1] Let's look at what we have covered so far. [2] Imagine you have the drone hovering in front of you and want to make it turn to the left and go forward. What sequence of actions will you take?
		
		[3][4] To get the drone to complete the task you will[5] slide the turn left icon toward the outside of the circle. [6] Then you will slide the forward icon toward the outside of the circle as well.[7]
			[1] Cube rotate Title on to screen.
			
			[2] Text Box 1 and Drone Icon Fade onto screen
			
			[3] Wait several seconds before starting this part of the audio.
			
			[4] Text Box 1 Fades off and Text Box 2 Fades onto screen.
			
			[5] Red arrow starts in the middle of the left circle on the Interface Image and slowly animates to the left until it reaches the outside of the circle.
			
			[6] Red arrow starts in the middle of the right circle on the Interface

[5] Red Arrow with point to the left [6] Red Arrow with point to the top			Image and slowly animates to the top until it reaches the outside of the circle. [7] Drone Interface Zooms Back to fit the entire screen.

Notes:

Section: Top Left Icons			
Visual/Display	Slide Text	Narration/Voiceover	Animation
[1] Title1- Tan rectangle text box with blue writing in the middle of the screen [1] Interface Image- Takes up the majority of the screen [3-5] Sketch Motion Circle [6] Sketch Motion Arrow 1 pointing to Settings Icon. [7] Settings Menu Image takes up majority of screen. [7] Sketch Motion Oval 1 - Placed over Flight Speed Information [8] Sketch Motion Arrow 2 pointing to More in the upper right corner. [9] Sketch Motion Oval 2- Placed over Photo Quality options	[1] [Title1] Top Left Icons [7] [Title 2] Settings	Now that you know the basic icons to use to fly the drone, let's dive into the other icons and data in the interface. [2] The top left corner has the [3] Takeoff and Landing icon as previously discussed. [4] The middle icon lets you choose from a variety of Flight Modes. You will want to wait to experiment with these modes until you have become more comfortable with flying the drone. [5] The last icon is for the [6] Settings menu.[7] Here you can adjust the [8] Flight Speed, [9] change Photo Quality, [10] and access the [11] Beginner Guide.	[1] Cube rotate Title on to screen. [2] Zoom in on the Interface Image to the top left icons. [3-5] Sketch Motion Circle draws on each icon as described in audio. [6] Sketch Motion Arrow 1 plays. [7] Interface Image replaced with Settings Menu Image. Title 1 changes to Title 2. Sketch Motion Oval appears. [8] Sketch Motion Arrow 2 plays. [9] Sketch Motion Oval 2 appears. [10] Sketch Motion Arrow 3 plays. [11] Beginner Guide enters.

[10] Sketch Motion Arrow 3 pointing to Beginner Guide in the upper right corner. [11] Beginner Guide Image- Takes up the majority of the screen			
Notes:			

Section: Data			
Visual/Display	Slide Text	Narration/Voiceover	Animation
[1] Title- Tan rectangle text box with blue writing in the middle of the screen [1] Interface Image- Takes up the majority of the screen [3-5] Sketch Motion Circle [6-7] Sketch Motion Oval	[1] [Title]Data	The information [2] in the top middle shows the [3] Battery Indicator, [4] WI-FI Status, [5] Bluetooth Status, and Drone Data including [6] the drone speed and [7] height of the drone. While learning how to fly the drone we recommend keeping the speed on slow.	[1] Fade in Title and Interface Image. Fade Out Beginner Guide Image and Title from previous scene. [2] Zoom in on the Interface Image to the top left middle icons. [3-5] Sketch Motion Circle draws on each icon as described in audio. [6-7] Sketch Motion Ovals draws on each icon as described in audio. [8] Drone Interface Zooms Back to fit the entire screen.
Notes:			

Section: Photography Controls			
Visual/Display	Slide Text	Narration/Voiceover	Animation
[1] Title- Tan rectangle text box with blue writing in the middle of the screen. [1] Interface Image- Takes up the majority of the screen [3-5] Sketch Motion Circle	[1] [Title]Data	The icons on the [2] top right side of the drone interface are the photography controls. [3] The first icon lets you view the Images and Videos you have taken. [4] The middle icon lets you switch the view of the camera on the drone from camera to video and back. [5] The last icon lets you take a picture or record. [6] You will learn more about using the drone to take pictures in the next video.	[1] Fade Out Title from previous scene and Fade in Title. [2] Zoom in on the Interface Image to the top right icons. [3-5] Sketch Motion Circle draws on each icon as described in audio. [6] Drone Interface Zooms Back to fit the entire screen.
Notes:			

Section: Let's Apply It			
Visual/Display	Slide Text	Narration/Voiceover	Animation
[1] Title- Tan rectangle text box with blue writing in the middle of the screen. [1] House Image- Takes up the left half of the screen- Place the drone icon on the lower part of	[1] [Title]Apply It [2] [Text Box 1]- <u>Think About It</u> How would you get the drone to fly from the front drive to the target area?	[1]Now that we know how to use the basic drone interface functions, let's try to apply this knowledge to survey the target area on this roof.	[1] Cube rotate Title and House Image onto screen. [2] Text Box 1 and Drone Icon Fade onto screen [3] Wait several seconds before

the image and a target icon on the upper right of the image.	[4] [Text Box 2]- <u>Think About It</u>
	   1. Launch the drone.
	   2. Go up.
	   3. Turn right.
	   4. Go forward.
		[2] You will need to fly the drone from the front drive to the target on the image.
		What sequence of actions will you take?
		
		[3][4] To get the drone to complete the task you will press the Take Off Icon and then slide to launch the drone. You will need to then slide the go up icon toward the outside of the circle until you are hovering a distance higher than the house. You will then slide the turn right icon toward the outside of the circle until you have completed a full right turn. Then you will slide the forward icon toward the outside of the circle until you have reached the target.
			starting this part of the audio.
			
			[4] Text Box 1 Fades off and Text Box 2 Fades onto screen.

Notes:			

Section: Conclusion			
Visual/Display	Slide Text	Narration/Voiceover	Animation
[1]Title- Tan rectangle text box with blue writing in the middle of the screen.	[1] [Title] Using a Drone to Survey Storm Damage	[1] Thank you for watching video two: Drone Interface. [2] Now that you have completed the lesson you should be able to use the	[1] Cube rotate all from previous slide off and Title and Drone Image onto screen.

[2] Bulleted List- Tan rectangle text box with blue writing in the upper left corner of the screen
 	
[3] Next Video List- Tan rectangle text box with blue writing in the upper left corner of the screen
 	
[4]C&M Logo- Large in the middle of the screen when video starts
	[2][Bulleted List] In this video you will learn how to
	  ● Take Off
	  ● Land
	  ● Fly the drone
	
	[3][Next Video List]
	In the next video you will learn how to use the photography tools.
		drone interface to take off, land, and move the drone.
		[3]In our next video we will explore how to use the drone to take photographs and video. [4][5]
			[2] Title fades off with the bulleted list fading on.
			
			[3] Bulleted List fades off with Next Video List fading on.
			
			[4] All Cube Rotate off the screen at the end of the narration. Logo Cube Rotates on.
			
			[5] C&M Logo- fades off the screen three seconds after rotating on.

Notes:			