> **rotoscope**

> **objective(s):**
    Students will create a short animation using the rotoscope technique.

> **curricular focus:**
    This lesson emphasizes creating realistic movement by tracing over video sources.

> **principles of animation:**
    • straight ahead/pose to pose
    • slow in/slow out

> **specifications:**
    save as: Rotoscope_LastnameF
    width: 1920 px
    height: 1080 px
    frame rate: 24/sec

> **instruction:**
    • review straight ahead/pose to pose and slow in/slow out techniques
    • review animating on twos
        - "twos" refers to how many frames one drawing is held for
                for every two frames there is one drawing
                at 24 fps this means means there are 12 drawings for one second of animation
    • introduction to rotoscoping
        - watch *Video to Animation- The Art of Rotoscoping* by Olof Storm
                (https://youtu.be/iQwI_y6GGKo?si=MXq0mfZWRDbyGD99)
        - watch 1:05-2:50 of *Take On Me* by A-ha music video
                (https://youtu.be/djV11Xbc914?si=TLq04sIFE4yYVR4_)
    • view rotoscoping examples
        - go to Rotoscoping Examples folder
        - discuss what works well and what could be improved
                how well was the artwork simplified?
                how consistent are the details?
        - see *Rotoscope Example* on page 6
    • review Classic and Fluid Brush tools
        - watch and perform tutorial on Brush drawing (if needed)
                [https://helpx.adobe.com/animate/how-to/drawing-with-brush-tool.html]
        - watch and perform the tutorial on Fluid Brush drawing (if needed)
                [https://www.linkedin.com/learning/adobe-animate-essential-training/drawing-with-the-fluid-brush]
                you may need to re-log in to LinkedIn Learning to access the video
                    see lesson plan A1-00 Animate Tutorial for instructions

> **procedure:**
    • see step-by-step direction on the next page

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STEP ONE: get reference footage
- footage must focus on a *single* figure/subject
    - example: a person dancing, an animal roaring or a wave crashing
- footage must be 1-3 seconds
- footage can be self-created or downloaded off the Internet
    - footage is not required to be looped
- footage must be in .mov or .mp4 format
- approve footage selection with instructor

STEP TWO: thumbnail sketch
- review rotoscope examples while creating your thumbnail
- create a single sketch of your subject (and any other elements) to show how it will look throughout the animation
    - this is to prevent unintentional stylistic changes in the middle of your GIF
- decide which details you will keep and what to get rid of
    - for example: if you draw buttons on a person's shirt, draw them consistently throughout all frames
    - if you decide to use color, limit your palette to 2-3 colors and label them on your sketch
        color may be included in brush stroke color, background, foreground, or in part of your subject like hair
    - consider what is the least amount of detail you can have while keeping artwork clear and recognizeable
        simpler is better than more detailed since you will be hand-tracing 12-36 frames
- label which type of brush you will be using (Classic or Fluid)
- approve thumbnail with instructor

STEP THREE: create background
- create a new layer and name it Background
    - move layer to the bottom of the layer order
- create a rectangle the exact size of the document
    - make sure it is perfectly centered so that the edges of the rectangle match the document exactly
- set your background color

STEP FOUR: create animation
- import your video to Adobe Animate following the instructions on page 3
- create a new layer and name it Drawings
- lower the alpha level of your video layer so you can see your artwork clearly on top
    - select video, then go to Properties: Object and lower Alpha to desired level (approximately 50%)
- trace the first frame using brush (Classic or Fluid) in the style (and color if applicable) of your approved thumbnail
    - *important!* if you chose to have solid color in part of your *subject*, do not leave any gaps in your traced outline so you can easily fill the desired elements with the paint bucket tool after you are done drawing
- approve first drawing (colored if applicable) with instructor
- continue drawing frames on the same layer
    - *remember!* you are animating on *twos*
        there should be one drawing on every odd numbered frame
    - move scrubber to frame 3 then select the frame and make it a new keyframe
    - select the entire drawing on the new keyframe and delete it
    - trace the footage on that current frame
    - repeat until you reach the end of your footage
        if your footage ends on an even frame, do not trace it
- approve complete series of initial drawings with the instructor

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STEP FIVE: adjust frames
- play back your frames and analyze areas where certain movements can be enhanced
    - pick out points that you would choose to be keyframes if you were animating pose to pose
        - decide how to adjust the surrounding frames
    - adjustments may include:
        - moving frames closer together towards the apex of a curve (like in bouncing ball)
        - smearing a frame where there is high-speed movement
        - adding additional frames where movement is slow
- approve your adjustment choices with the instructor prior to making them
- make the adjustments

> **requirements:**
- file specifications are adhered to
    - document is 1920 x 1080 px
    - frame rate is 24 fps
    - layers are appropriately named
    - final project is 1-3 seconds long
    - reference footage layer is deleted
- background
    - background is a single color that is aesthetically pleasing
    - background color does not compete with or distract from the animated foreground
- animation
    - animation focuses on a single subject and its action
    - artwork is appropriately simplified the reference footage
    - style is consistent
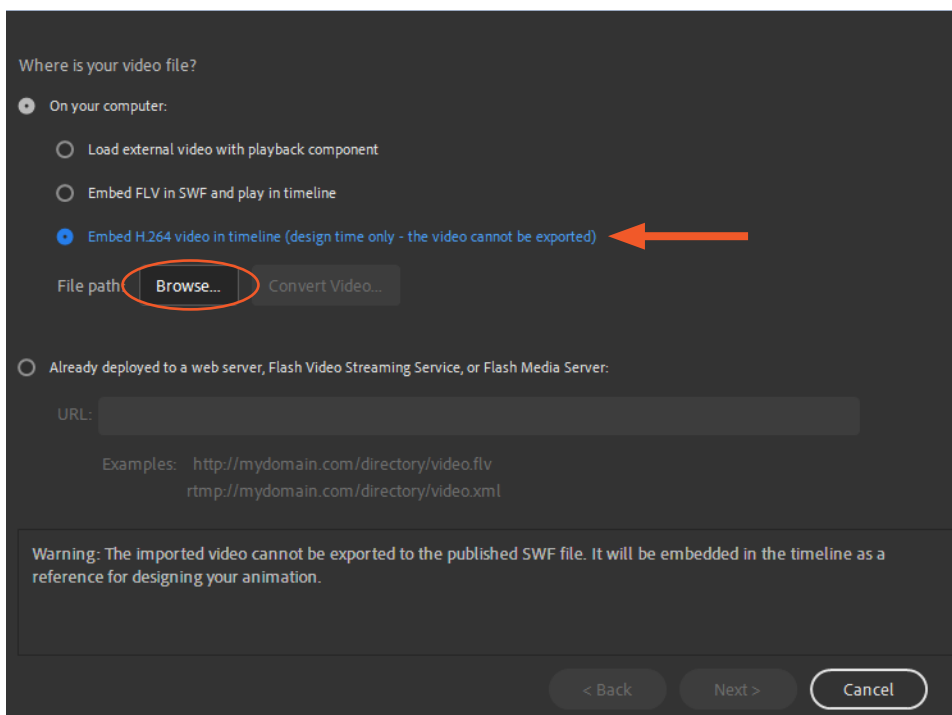   - animated on twos

> importing video

STEP ONE:
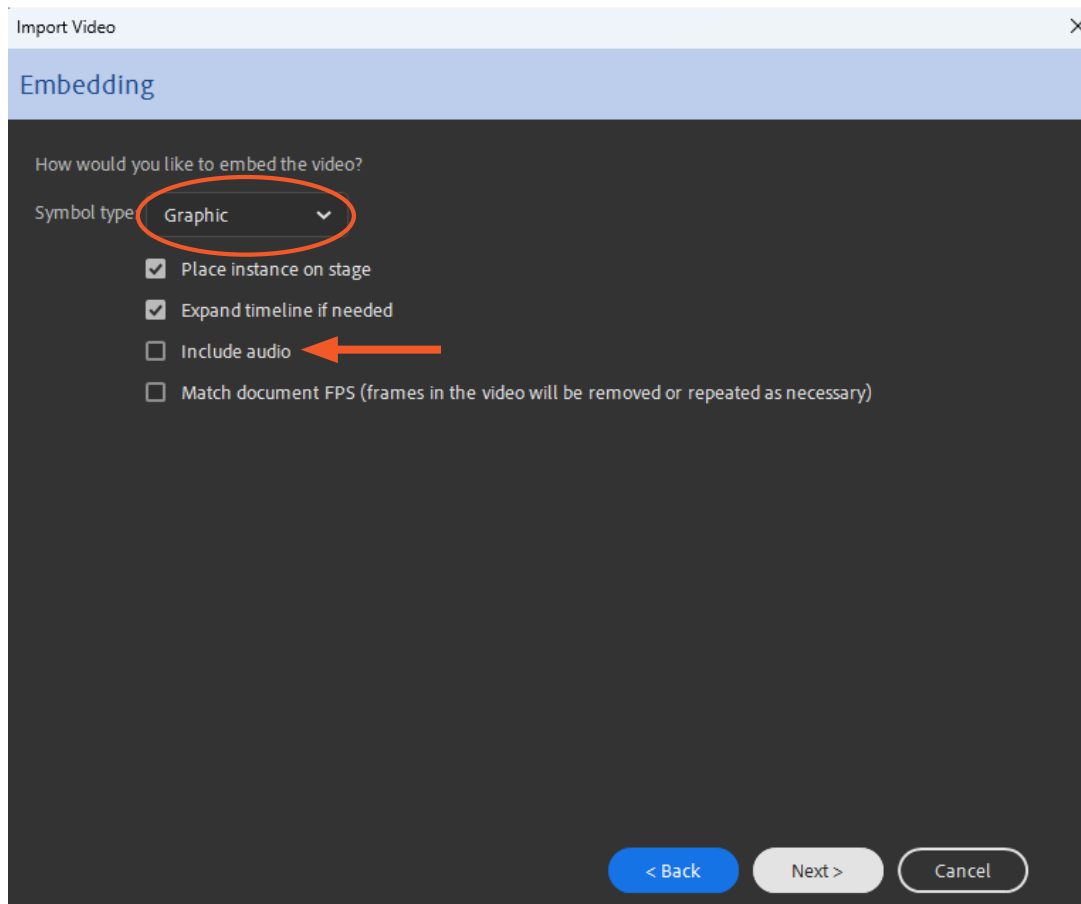- go to File > Import
- select "Import Video"
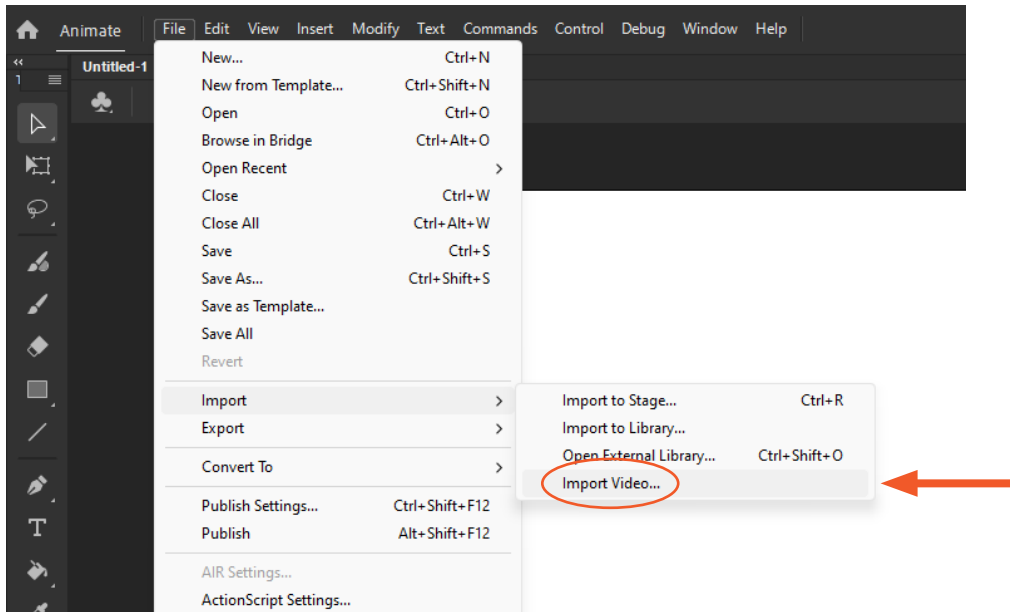
STEP TWO:
- select "embed H.264 video in timeline"
- click "browse" and select your reference video
- click next

> importing video

STEP THREE:
> • change the symbol type to graphic
> • make sure "include audio" is NOT selected
> • hit next and finish

STEP FOUR:
> • add frames to your timeline until the full length of the footage is shown
>   - make sure to get rid of extra frames past the original duration of the video

> rotoscope example