

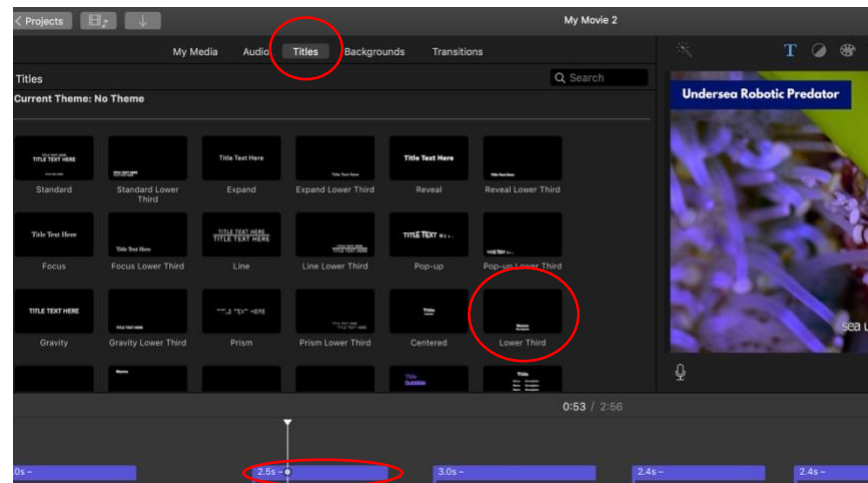
Using iMovie for Capstone Design Expo Display

By Samantha Mann

iMovie is a free application for macOS and iOS. This software was used to create a video for the project display at the Capstone Design Expo. The software is relatively simple to use; to begin making a video it's as easy as importing the video and audio files and dragging and dropping them in the desired location in the iMovie timeline. The basics of using the software are easy to pick up. The following, less intuitive, features have been described below as they were particularly helpful for creating the video.

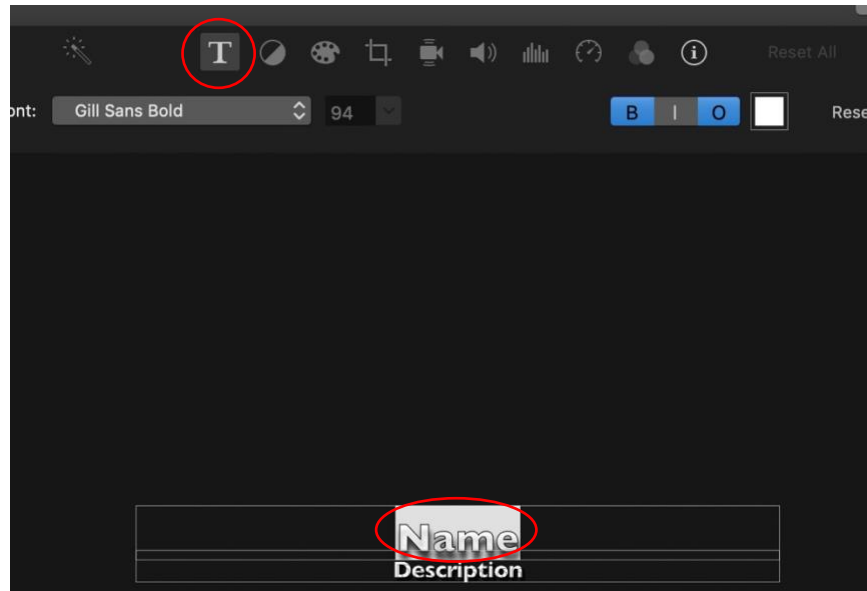
Custom Subtitles

To add subtitles to clips in iMovie, first navigate to the 'Titles' section in the upper left menu. Select the 'Lower Third' option and drag the caption over the clip in the Timeline.

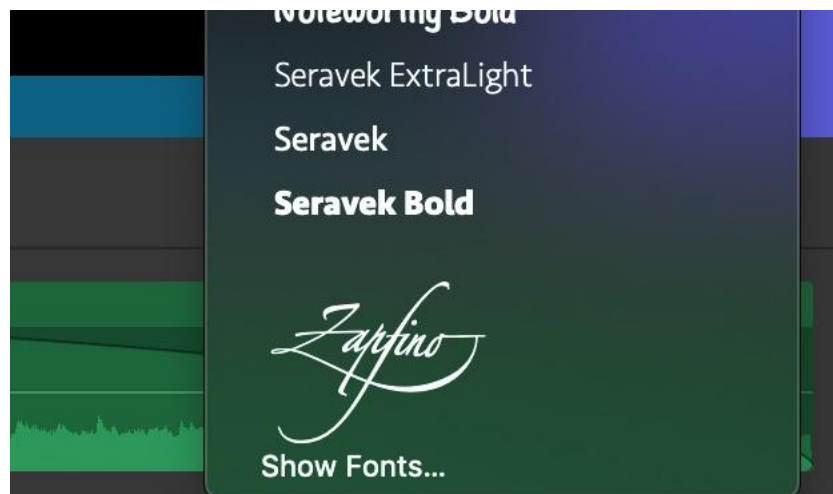


The default length is 4.0 seconds. This is a good amount of time for longer captions, but anywhere between 2.5s – 4.0s will work depending on the length of the caption.

To edit the Lower Third title to look like a caption, select the ‘T’ icon to edit the text and delete the bold Name portion.



In the Description portion type the caption, keeping the length within one line of text. To change the style, select the Font: upper left drop-down menu. Scroll to the bottom to Show Fonts...

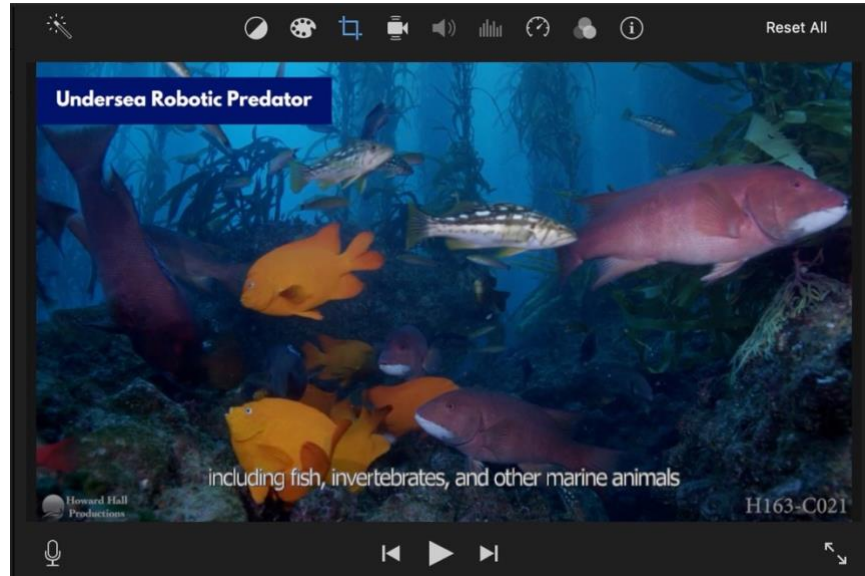


We found the Tahoma font looked best for the subtitles. Enter this in the search box to use this font. The default color – white with a black outline – will appear against any background and is the best option for captions. Select

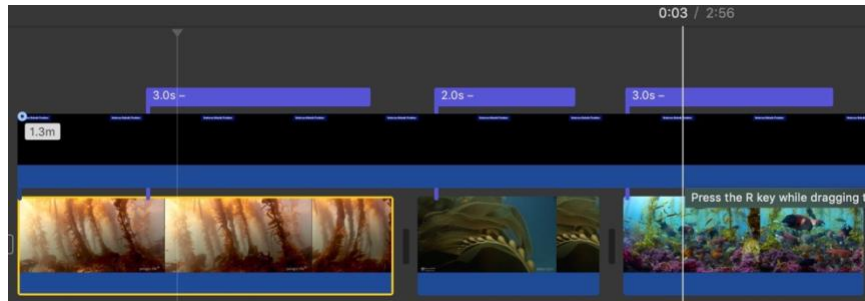
the “T” icon again to exit the caption editing and save changes.

Image Overlay

To show our team name on display, we added an image over the entire length of video with our team name.



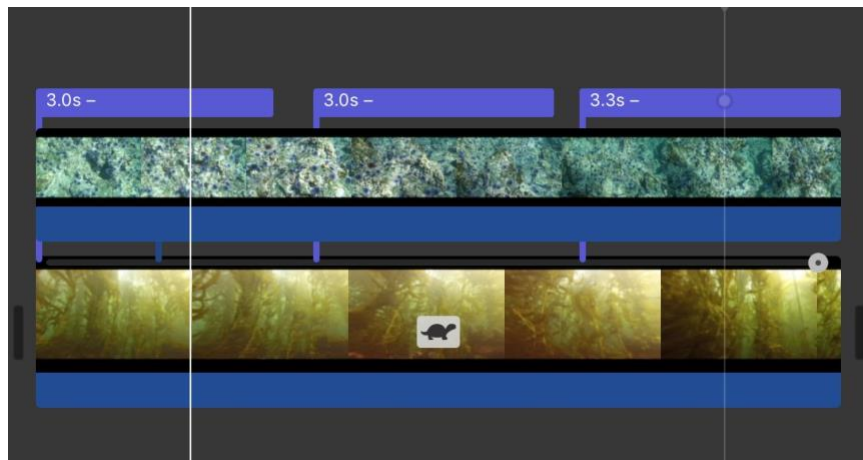
The image can be created in any photo editor, like Adobe Photoshop (paid – free access for GT students through <https://mycloud.gatech.edu/vpn/index.html>, use Library Desktop) or GIMP (free). The background must be transparent, so save the image as a .png file. We recommend using the 4K resolution standards for choosing the image dimensions. The image used here is 3840 x 2160 px. To add the image, drag it into the timeline above the video it should be displayed over and extend its length. This is shown below (the image appears all black and extends the entire video, placed in between the captions and main content):



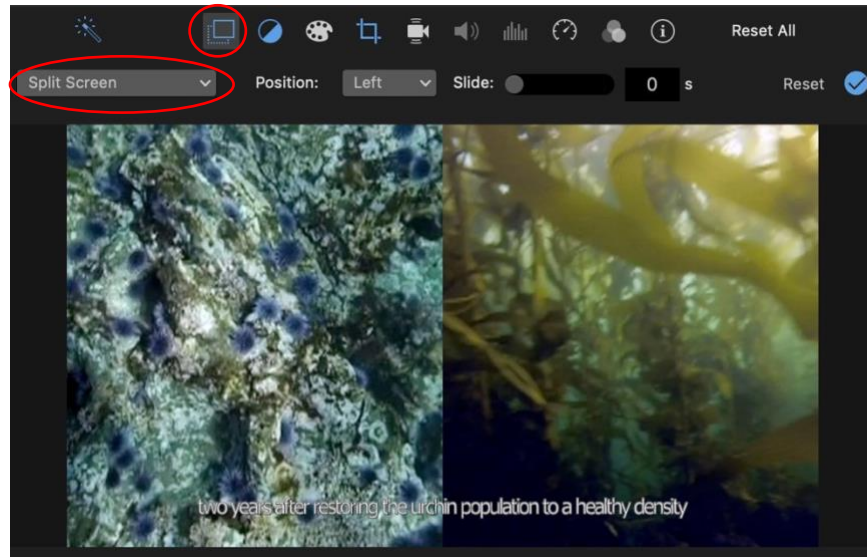
Split Screen

We used the split screen feature to compare videos of an urchin barren with kelp forest restoration videos in the same location after the urchin population was restored to a healthy density.

To use split screen, drag the videos one on top of the other in the timeline.



From the top menu, select the overlay icon and set the upper left drop-down menu to Split Screen. Select the overlay icon again to exit and save changes.



Other Software

Blender, a free 3D modeling software, and Unity3D, a free game engine, were used to create a short animation of the VideoRay underwater. Learning how to use these software tools is outside the scope of this document & project, however the 3D models used and main Unity Assets have been included with the project documentation in case they are desired for use in another animation.

