



Autodesk 123-D Catch iPad App

At a Glance...

- lets you turn a real-life object into a 3-dimensional digital 3-D model
- capture something small or something as large as a building
- manipulate the model on a computer screen, add it to 3-D animation, or 3-D print it.

Access It At...

on school iPads (free app available for Droid, too)

Required Knowledge...

- Basic iPad usage
- Basic iPad camera usage

Helpful Knowledge

- 3-D object manipulation
- 3-D printing process
- 3-D animation process

Watch Out!



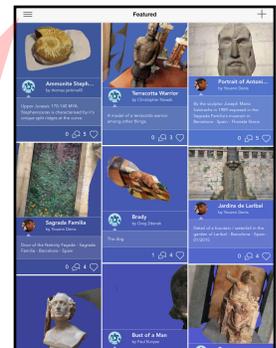
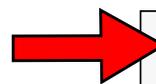
- Students must be over age 13 to create an account with this service. If under 13, a parent/guardian must agree to the Terms of Service and supervise student usage.
- Be careful digitizing things that might have Intellectual Property / copyright / patent legal issues.

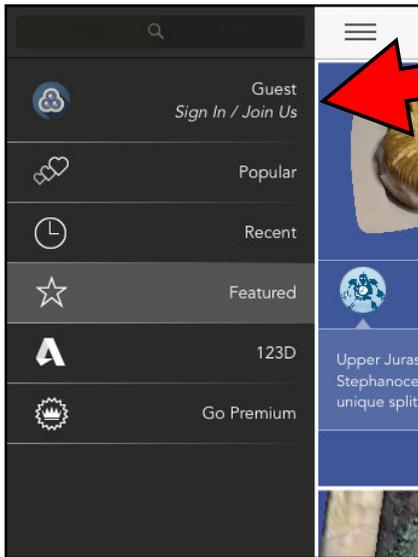
This app is installed on all school iPads. To use this on a personal iPhone (Droid phones, too) or iPad, you can download the app for free. After performing a capture, you may want to access your creation(s) via a web browser on a computer to "clean up" the model. 3D processing requires a very powerful computer - so stay away from editing your models on older computers.

Launch the 123-D App. At LRMS, it is located in the "Art/Media" folder.



After some initial messages, you'll be presented with a gallery of 3D captures other people have created. Tap the navigation button at the top left of the screen.





Tap the top option, "Sign In / Join Us"



Tap "New User" and follow the steps to create an account with Autodesk.

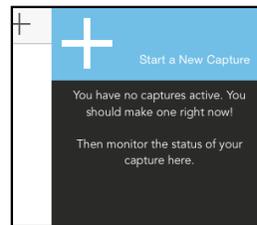
Remember a student must be 13 years old to create an account without parent permission/supervision.



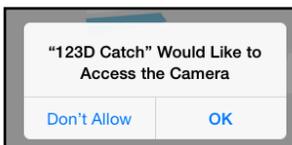
After your account is created, the app will automatically log you in. You'll be taken to this screen - your "feed." This is where you would see the 3D captures you've performed.

Of course, we haven't done one yet - so there's nothing there!

To begin your first capture, tap the "+" at the top right of the screen.



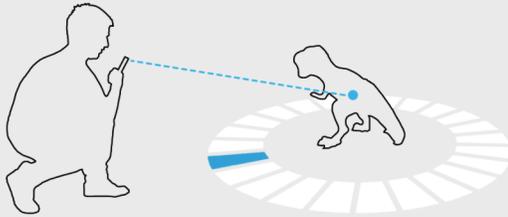
A window will slide open on the right. Click the big white "+" to begin a capture.



You may receive notices that the app would like to access the iPad's camera. Click OK.

If it's the first time you've used this app, you'll be presented with a 4-slide quick tutorial. Here they are, illustrating what you'll be doing...

123D Catch can only capture what it sees. Imagine a string connecting you to the center of your object.

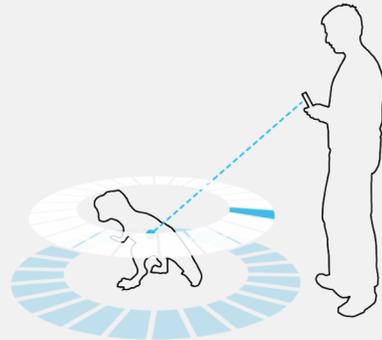


Walk around your object, taking overlapping photos. Fill the frame with your object in **each** photo.



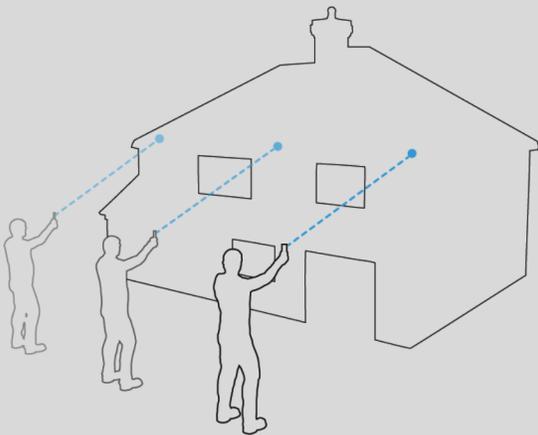
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Take photos at varying heights. Walk around the object a couple of times to get photos from above or below. We recommend 20-40 photos in total.



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With large objects like buildings, move across the side of the object, taking overlapping photos.



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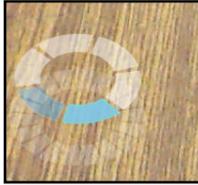


FOR SUCCESSFUL RESULTS

- Ensure even lighting around the object
- Ensure contrast between the object and surface
- The object must not be shiny or reflective
- The object must remain still

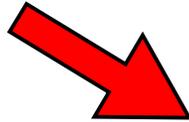
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After viewing the slides, you're now taken to the camera. Tap the circle button on the right side of the screen to take a picture. Hold the iPad very steady and still, with your object in focus.



This indicator helps you know the angles you've photographed. The white slices will turn blue once a photo has been taken from that angle.

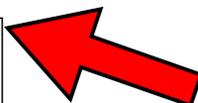
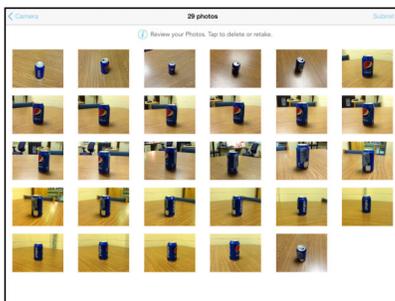
Blue indicates the angle has been photographed.



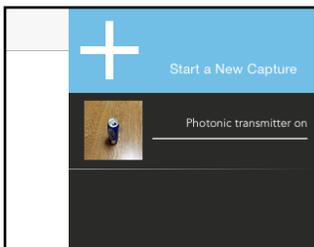
Note it's best to place your object on a table or pedestal, so you can walk completely around it to take photos. Placing your object on a table against a wall isn't a good idea.



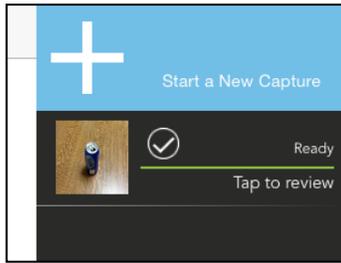
Once all "slices" of the indicator are blue, you're done with the camera. Tap the blue check mark at the top right of the screen.



You're now shown the series of photos you just took. If you're happy with them, click "Submit" at the top right.

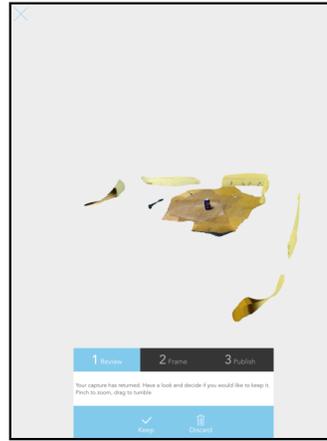


You'll now see an indicator on the right side of the screen that shows the photos are being uploaded to Autodesk. Autodesk remotely processes the photos and creates your 3D object. This process can take some time - up to several hours.

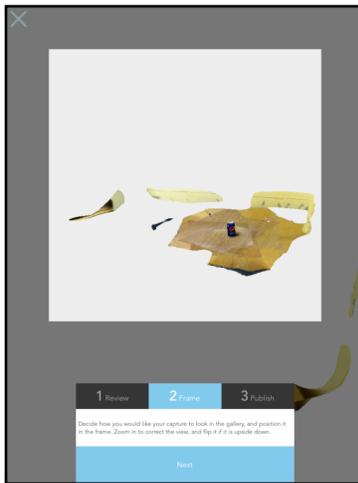


You'll know it's complete when you see a green line with the word "Ready."

Tap that green line to review your capture.

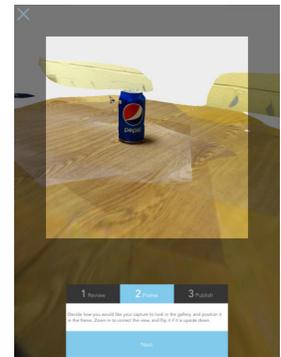


Here's the first screen of the capture review. You can use your finger to pinch and swipe to get a 3-D look at what you've captured. You'll note there's a lot of "extra" stuff in the capture, so you may have to pinch to zoom in to your object itself. Select "Keep" if you're happy.



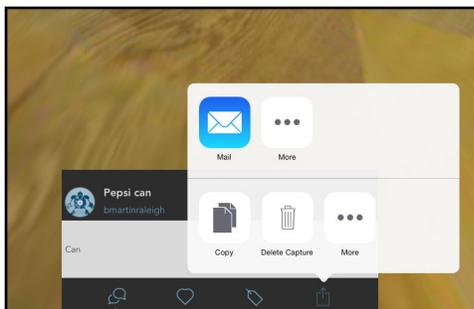
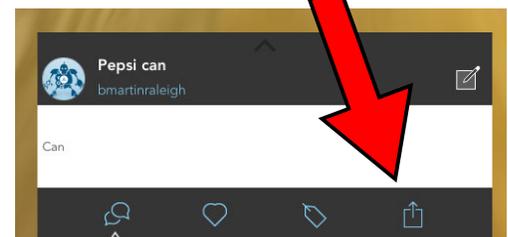
The next step of review is to frame the thumbnail that will be used for your model. Pinch your figures and slide around until you see your object as you wish.

Here, we've zoomed in so the can is clearly viewed.



Finally, you'll give your project a name and details. You can turn on sharing to enable others around the world to see your capture.

Next, you'll be able to share your object. Click the "share" button on the bottom right...



You can then email yourself a link to the object or delete the capture.

Advanced users may want to next load their object on Autodesk's website. You'll be able to doctor the image up, including deleting the "extra" stuff around your object. That process is beyond the scope of this quick-start tutorial. Access it online at: <http://www.123dapp.com/catch>

More Support...

Quick Start Guide:

<http://www.123dapp.com/howto/catch>

Make a 3-D Print with 123-D Catch:

<http://www.instructables.com/id/Making-a-3D-print-of-a-real-object-using-123D-Catc/>

Classroom Ideas...

123-D Catch a student! Or, your entire class!

123-D Catch a piece of student-created artwork (like a sculpture or model)

123-D Catch plants or trees for Science class

123-D Catch buildings or places while you travel to share the experience with your students

123-D Catch different items and use software like Autodesk Meshmixer to combine the models into a unique invention (imagine putting a human's head on a cow!)