Subject: Animatronic Owl Project
Posted by InnerbreedFX on Tue, 10 Jul 2012 15:58:45 GMT
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My name is Jonny,

Iv' been an undiscovered artist for many years.
most of my personal work involves character designs and concept games art, but i have a real passion for animatronics and robotics of which i have followed for many years.

cut the story short...
http://www.innerbreed.co.uk/

My project has been running for a while. The first few prototypes were all hand sculpted and cast in house in molds. but thanks to Shapeways 'i have a real opportunity to make this project take off.

This is an old image of some of the parts and so improvements have been made since.

The final bird will be feathered professionally by the UK's leading taxidermist, Mike Gadd.

Further reading.....
ABOUT THE PROJECT

A brief description about the project...
A lot of research with raptors require to capture individuals to put on identifying leg bands, and may radio transmitters. Raptors can be very difficult to trap. One of the most efficient tools is to find an active nest. The adults raptors will usually be protective of their nestlings, and especially aggressive toward large birds, such as the hawk or owl. They use this behavior to facilitate capturing other hawks. Essentially, they will set up a net near the nest and place a lure in front of it. The hawks will swoop at the lure to try to chase it from the nest area and get captured in the net. It is a very effective trapping method, but there are several problems that a good animatronic lure would overcome.

The goal in building this project?...
Some researcher have made stuffed lure with heads that can be rotated with radio control. They do not work well, but I believe my animatronic hawk, would be a substantial leap in terms of trapping lures. The cocking of the head, opening of the beak, and for the future development i will make it spread its wings, then it would make it, I suspect, incredibly efficient in trapping raptors. I am certain that, if it was confirmed to work well, numerous researchers would be interested in forgoing the headaches of live lures and stuffed decoys by getting an animatronic. My goal is to successfully field test this idea.

How this project aims to solve problems...
There are several problems that a good animatronic lure would overcome. First, we have to have federal and state permits to use a live lure for this purpose. The lures are usually non-releasable rehabilitated birds with some injury (e.g., broken wing). Getting these permits is a very onerous task due to federal and state legal requirements. Second, because the lure is alive, we have to provide food and care for it, and protect it from environmental conditions such as cold, heat, direct sunlight, etc. Third, Animal Welfare Legislation in the United States (which is even more restrictive in the UK) has led to many institutions not allowing the use of a live lures for this purpose without substantial justification and oversight. This has led many researchers to use plastic scarecrow lures. However, these do not work well for trapping.

Working With Nature...
Life-like movements are critical for getting an aggressive response from hawks. I know the current hawk has a long way to go but as far as im aware there is nothing like this currently out there? The use of scarecrows or stuffed owls also may induce greater disturbance to the nesting hawks due to low aggression response but repeated disturbance due to the researcher trying to capture them repeatedly. This is also problematic when trapping in remote locations; you want the trap to work the first time after hauling all the equipment in to the site.

File Attachments

1) Test render.png, downloaded 1542 times

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Tue, 10 Jul 2012 16:00:22 GMT
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File Attachments

1) iso With head shell.png, downloaded 1532 times

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Tue, 24 Jul 2012 21:27:26 GMT
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I cannot thank Shapeways enough...

File Attachments
1) Untitled.png, downloaded 1366 times

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Tue, 14 Aug 2012 22:26:47 GMT
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File Attachments
1) iso.jpg, downloaded 1274 times

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Tue, 14 Aug 2012 22:27:58 GMT
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File Attachments
1) 1344982065002.jpg, downloaded 1265 times

Subject: Re: Animatronic Owl Project
Posted by icarus3d on Wed, 15 Aug 2012 09:17:35 GMT
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Very interesting work. i hope we will see a clip when the owl get alive

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Wed, 15 Aug 2012 16:25:15 GMT
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hi, thanks for posting.

yes i hope to include a few videos while once its all rigged up to the controls.

post development videos (in its skeleton form) and also once its been feathered.

i have a few concerns about the amount of space inside for the cables that activate the wings but ill get around this..

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Thu, 16 Aug 2012 16:00:27 GMT
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File Attachments

1) animatronic bird.jpg, downloaded 1207 times

Subject: Re: Animatronic Owl Project
Posted by Eeppium on Fri, 17 Aug 2012 11:41:36 GMT
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Cool project!

keep us posted on those videos =)

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Tue, 11 Sep 2012 17:38:06 GMT
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some images from the latest assembly.

Electrical housing designed by a friend of mine @
http://www.shapeways.com/shops/DiaLFonZo-Copter

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Sat, 22 Sep 2012 18:10:44 GMT
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Subject: Re: Animatronic Owl Project
Posted by Eeppium on Sat, 22 Sep 2012 18:16:56 GMT
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Great progress! =)
keep Â´em coming.

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Mon, 24 Sep 2012 14:29:07 GMT
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And a Test video:

http://www.youtube.com/watch?v=RO-f7aXktyg&feature=plcp

Subject: Re: Animatronic Owl Project
Posted by Eeppium on Mon, 24 Sep 2012 19:57:06 GMT
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Very nice!
quite smooth movements, very birdlike thing going on with the head looking around.
are you going to give him the feathery outfit soon ?

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Wed, 26 Sep 2012 08:56:36 GMT
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yes it will soon be feathered. one the programming has been done.

here is a better video:
http://www.youtube.com/watch?v=BVPcXjKRJ6I

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Mon, 15 Oct 2012 13:34:34 GMT
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The mech:

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Mon, 26 Nov 2012 16:24:47 GMT
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Subject: Re: Animatronic Owl Project
Posted by MitchellJetten on Mon, 26 Nov 2012 18:21:03 GMT
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Damn that's a cool ambitious project you are working on!

keep the pictures coming!

Subject: Re: Animatronic Owl Project
Posted by BITGEM on Tue, 27 Nov 2012 14:44:13 GMT

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Amazing project! This is very interesting and an incredible amount of work. I hope you can take it all the way to completion!

Subject: Re: Animatronic Owl Project
Posted by AD-Edge on Wed, 28 Nov 2012 07:44:14 GMT
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Will be keeping an eye on this, very impressive work.

Looking forward to seeing it with feathers and final details, thats for sure

Subject: Re: Animatronic Owl Project
Posted by bartv on Wed, 28 Nov 2012 12:22:41 GMT
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Woahhh - love it!

Did I spot Blender there?

Bart

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Wed, 12 Dec 2012 21:02:54 GMT
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Thank you all for your comments. I will be talking to my taxidermist early January regarding the feathering. i have made up two models (one is RC controlled and the other is autonomous) and i hope to get them both feathered.

@ bartv,
yes i have used blender to sculpt the head over the eye control mech so it fits perfectly.

Just waiting for one tiny part from shapeways (Target ship date was today?) till i finish the second (RC) model.

Errm.. images, yes... just the new control case..

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Sat, 19 Jan 2013 20:23:31 GMT
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Ok a date as been set for the next stage. We will begin in feathering process from 18th February. This is great news for the project and im really looking forward to it.

File Attachments

1) 1358594409900.jpg, downloaded 590 times

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Fri, 14 Jun 2013 16:14:28 GMT
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Final Feathered armature to be presented soon. LOOK OUT...

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Mon, 17 Jun 2013 14:56:45 GMT
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Please check out the wonderful work of Mike Gadd, who has feathered my mechanical armature. I haven't yet fired it up due to time many as i need to sort out some power but so far here it is. I already know there are a few mechanical constraints (as expected) but i will be working on another rig for mike that will hopefully make things easier for him and also better for the final performance.

BUT.. Check this out!

Subject: Re: Animatronic Owl Project
Posted by AmLachDesigns on Mon, 17 Jun 2013 19:50:24 GMT
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Incredible!!!

Fire it up and show us the video...

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Mon, 17 Jun 2013 20:05:58 GMT
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Ok i was really wishing to perfect the motions and iron out some of the issues but...
ok
here is a quick dirty video and unfortunatly my video editing software isnt working and so the video is raw.
http://www.youtube.com/watch?v=LfXY15Clk-0

Subject: Re: Animatronic Owl Project
Posted by UniverseBecoming on Tue, 18 Jun 2013 02:22:48 GMT
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Amazing! Keep up the great work!

Subject: Re: Animatronic Owl Project
Posted by bartv on Tue, 18 Jun 2013 07:30:22 GMT
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Wow, that's amazing!

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Tue, 18 Jun 2013 11:52:11 GMT
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Thank you. All thanks to shapeways. Without you... well id of used another company but... lol
Now I must tell the world. Lol

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Fri, 04 Apr 2014 20:21:15 GMT
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Just thought id share a better video of this project..
https://www.youtube.com/watch?v=wKHHmV_sA-I

Subject: Re: Animatronic Owl Project
Posted by SteveS3D on Sun, 06 Apr 2014 04:06:56 GMT
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That's really cool. Nicely done.

Steve S

Subject: Re: Animatronic Owl Project
Posted by InnerbreedFX on Thu, 10 Apr 2014 20:52:58 GMT
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thank you. ok here is a better video. looks more natural.

https://www.youtube.com/watch?v=17AEvXR4PRs