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U_ARMA Release Notes
Version 2
5/15/2014

CHANGES: New SKP release “7th release_3rd_SKP_U_ARMA_5.15.14 A”

Scope:
This document will detail what files have been released, in what order, and what the projects focus was at the time of release.

Purpose:
To make clear the timeline of the project, where the iterations are, and why they were made. This project at this point is developing very rapidly, and from past experience this can get very confusing when looking back from the present into past developments.

Project Description:
As I stated on the thingiverse page (http://www.thingiverse.com/thing:320004) for this project:

“

After seeing that the makers of UARM won their kickstarter campaign, many of us have been waiting for them to release their plans. Supposedly it is going to be open source hardware and software, since they got the kickstarter money we haven't seen any open sourcing, so I got impatient and drew up a rough mock-up in google sketchup. I wanted to make this public just in case there were more people like me wanting to see some plans. Keep in mind that this is an approximation based on pictures of the parts.

For more on UARM check out:
https://www.kickstarter.com/projects/ufactory/uarm-put-a-miniature-industrial-robot-arm-on-your

Also:
http://www.instructables.com/id/An-Arduino-powered-4-axis-parallel-mechanism-robot/

http://blog.ufactory.cc/assembly-diagram-of-uarm/

ignore the STL for now(5/4/2014), its the SKP file that I am sharing here, you can generate the

”

STL's from google sketchup.

Initial goal aside, **the goal of this project is to** complete the first phase of a larger project that I will not go into at this time. The phase line for the completion of this specific project is to **reverse engineer this robotic arm both in physical STL files as well as the inverse kinematic arduino code and control program files.**

To give you an idea of the next phase, it will include scaling up & multi-function toolheads like laser cutting and Fused Deposition Modelling (FDM /3D Printing)

Release Timeline & Notes

May 4th 2014
Project start date. I drew up the first Google Sketckup (SKP) file and released it on www.thingiverse.com as http://www.thingiverse.com/thing:320004

“UARM Reverse engineering by Armatec, published May 4, 2014”
First file title: “U_ARMA_B.skp”
The focus on this initial design file was to get an idea of the principle of the mechanics and the physical structure on the machine in the right orientation, it could then be scaled up or down in size and traced in order to make STL files.

May 4th 2014
2nd release
SKP file
Title: “U_ARMA_REVISION2_4.4.14”
Changes: Switched out the drawn up approximated servos with ones I downloaded from the Sketchup Warehouse. I also made a few different scales in size for comparison, all cosmetic changes, no real developments.

May 4th 2014
3rd release
PDF document
Title: “Better_Assembly diagram of the UARM”

I got this from the U Factory blog (http://www.ufactory.cc/downloads/documents/uArm_Assembly_Instructions_v1.pdf) This no longer exists on their website as they have replaced it with a much better version.

May 6th
4th release
STL
“U_ARMA_test.stl”
Testing out my first part that was “to scale” to the best of my understanding.

May 8th 2014
5th release
STL’s
“B1, B2, B3, B4, B5_6_N_7, B8, B9, B10, B11”
These are for the B Series or “Type B” turntable, this is based on a larger bearing (6207 2RS double sealed bearing 35mm x72mm x 17mm) I was getting ahead of myself, this is an **OBSOLETE DESIGN**, Type A turntable which will be released on May 16th will be replacing it, and the Type A is based on the original 61807 bearing 35mm x 47mmx 7mm.

May 13th 2014
6th release
PDF
“Latest greatest_uArm_Assembly_Instructions_v1.pdf”
New release from the UArm guys, more details on the parts and construction.

May 15th 2014
7th Release
SKP File
“7th release_3rd_SKP_U_ARMA_5.15.14 A”
This is the latest iteration of my 3d Cad file I have lost count of how many iterations of this file have been made, but here is the lastest work. I scrapped everything I have done before, and am now doing my best to stick to the original part specs.