



DDGT 241 – 1058 Robotic Arm Assignment List:

Assignment 1:

- 1058 Robotic Arm Working Drawing in AutoCAD with 3D.
- ANSI B
- Scale Accordingly
- Note: The “Sliding Tube” appears as a single part. Redesign this into a sub-assembly consisting of two parts so that it can actually be assembled and disassembled as needed
- PRINT

Assignment 2:

- 1058 Robotic Arm Working Drawing in AutoCAD with 3D.
- ANSI C
- Scale Accordingly (must be different than what you did for ANSI B)
- Note: The “Sliding Tube” appears as a single part. Redesign this into a sub-assembly consisting of two parts so that it can actually be assembled and disassembled as needed
- Revisions include:
 - “Base” - Change height from 3.00” to 4.00”
 - “Arm-E01” – Change length from 4.50” to 5.00”
 - “Arm-E02” – Change length from 3.50” to 4.00”
 - “Sliding Tube” – Change length from 4.19” to 5.19”
- VISUAL CHECKOFF

Assignment 3:

- 1058 Robotic Arm Working Drawing in Inventor.
- ANSI B
- Scale Accordingly
- PRINT

Assignment 4:

- 1058 Robotic Arm Working Drawing in Inventor.
- ANSI C
- Scale Accordingly
- Revisions include:
 - “Base” - Change height from 3.00” to 4.00”
 - “Arm-E01” – Change length from 4.50” to 5.00”
 - “Arm-E02” – Change length from 3.50” to 4.00”
 - “Sliding Tube” – Change length from 4.19” to 5.19”
- VISUAL CHECKOFF

Assignment 5: Animated Video

- 3d Max:
 - You can use the Robotic Arm from the Inventor assignment.
 - 50 points Extra Credit: You also have the option to modify the design for improvement and creativity (like adding a claw instead of a rubber appendage).
 - Your video will demonstrate the “Tower of Hanoi”. Google it.
 - You will need to do a minimum of 3 discs for full credit.
 - 4 discs = 35 points of extra credit
 - 5 discs = 100 points of extra credit
 - 6+ discs, see instructor for extra credit.
 - You will need to use the Reaction Manager for the raising of the rubber appendage.
 - You will need to use the bones, IK Chain, and lining to properly rig the assembly.
 - You will create a “hose” natively in 3ds Max
 - Environment, Materials, Lighting, Cameras will all need to be created by you.
 - Your logo should appear on one of the parts.
 - Your video needs to be at least 1920 x 1080 (Full HD) or 4K
- Premiere:
 - Audio track is required
 - You will need to add opening and closing titles including:
 - Name of Video
 - Your name
 - Your Logo
 - Your contact info (email and website)
 - Audio credits
 - DDGT.net web address
- Website:
 - You will need to create a new separate page dedicated to this project. The page should include:
 - Images of the drawing set for both AutoCAD and Inventor
 - Links to download the PDF versions of your drawing sets for both AutoCAD and Inventor
 - A multi-paragraph description of the project
 - The video hosted by Vimeo

Note: You will also be required to submit your video to the Handins folder.

Last updated 8/23/2018 gjs