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.