

Abdullah Jasim

Engineering Portfolio

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Training Parts Project, *Omni Components Corp*:

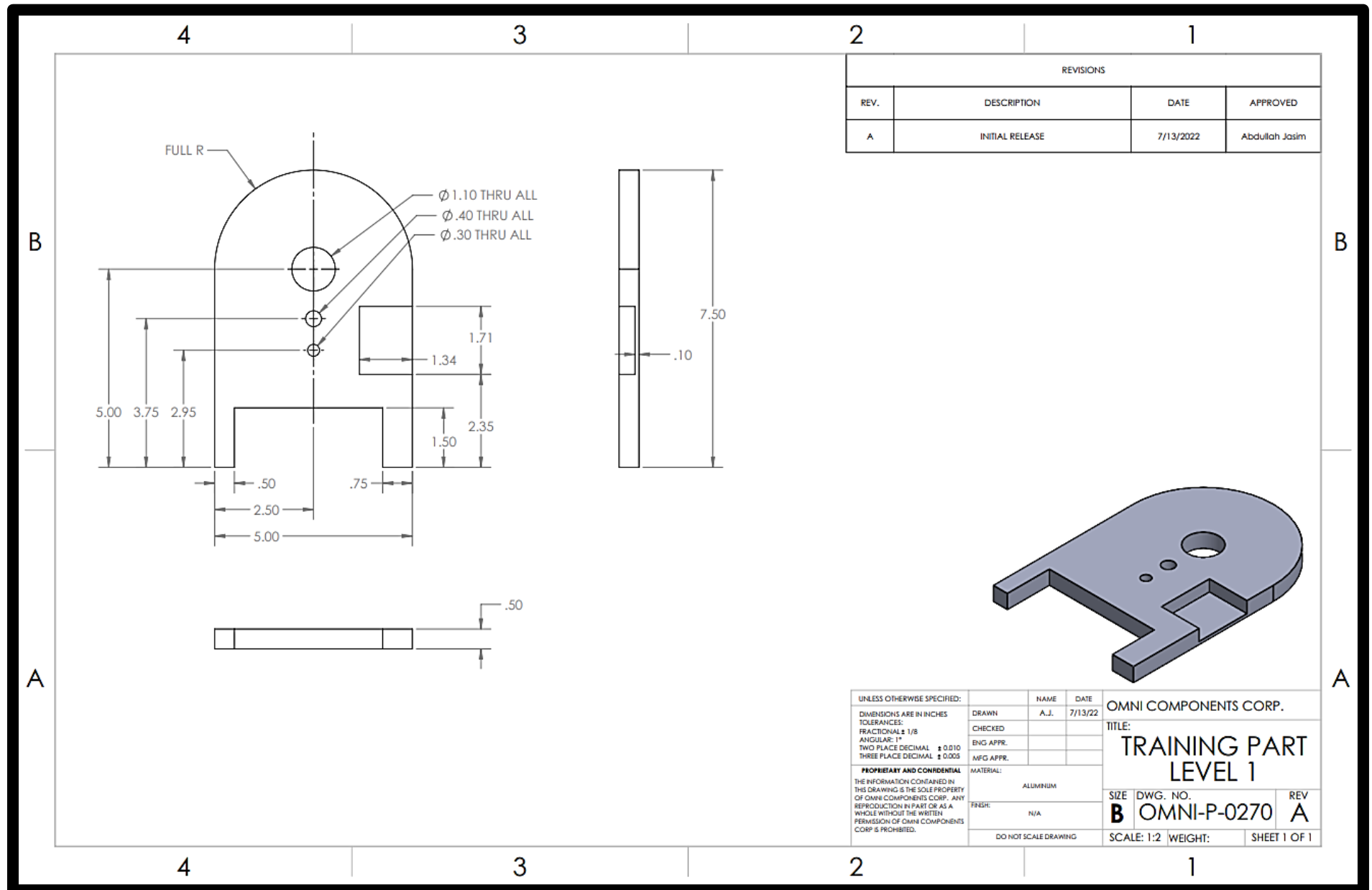
At Omni I was assigned with designing training parts with various levels to train employees on metrology and reading blueprints. I started by designing multiple parts in SOLIDWORKS then chose the best 3 that had clear variation in difficulty. After choosing the parts I created drawings for each one and added geometric tolerancing appropriately with each level. Level 1 is meant to be the easiest one to measure with level 3 being the hardest level. The following three drawings show the training parts. The parts had to be relatively easy to CNC mill and had to be less than 10 by 10 inches.

Trainees using my parts learned how to use:

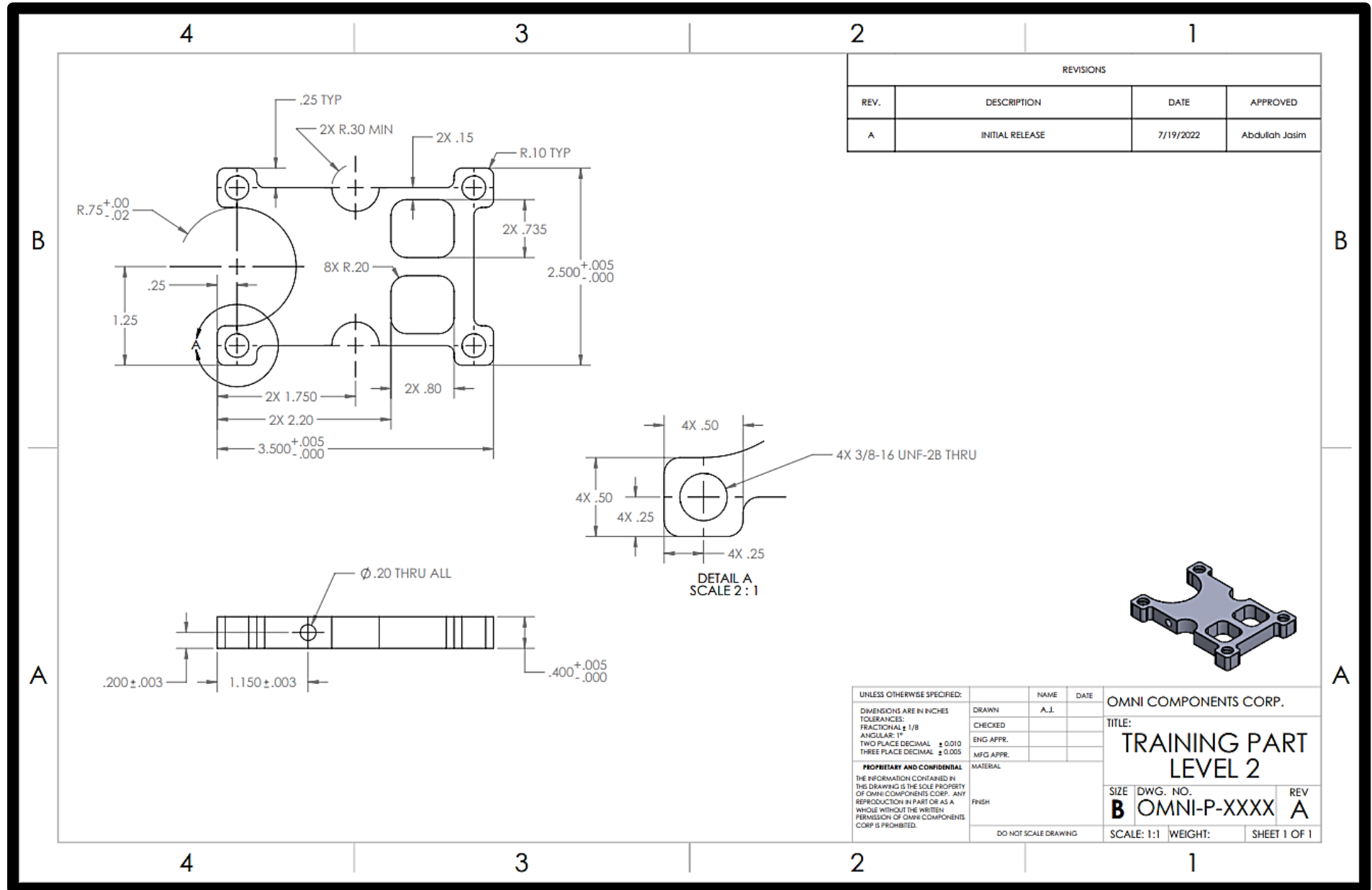
- Micrometers
- Calipers
- Pins
- Thread gauges
- Microheight
- Drop indicator
- Comparator
- Microscope
- Keyence
- CMM (coordinate-measuring machine)

*These drawings are approved by my manager at Omni to be seen by others

Level 1 shows basic dimensioning and tolerancing that can be measured using simple tools.



Level 2 has more difficult dimensioning and varied tolerancing.



Level 3 has very difficult GD&T and is meant to train employees on how to use more complex measuring machines.

