Hanging Espresso

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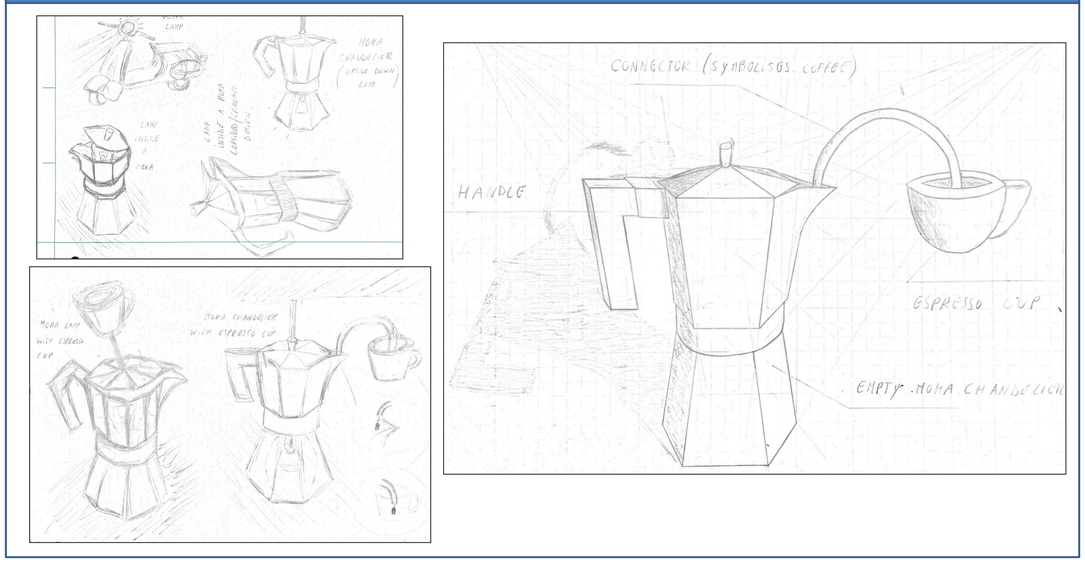
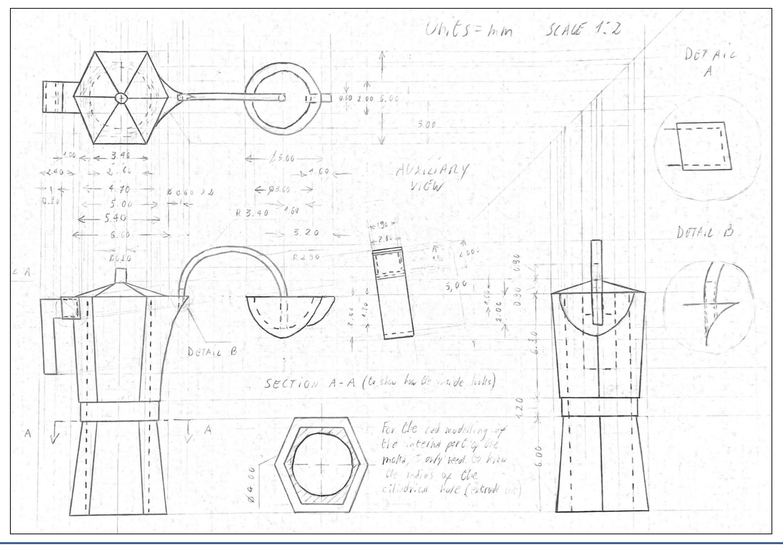
Product Description and Creative Ideation

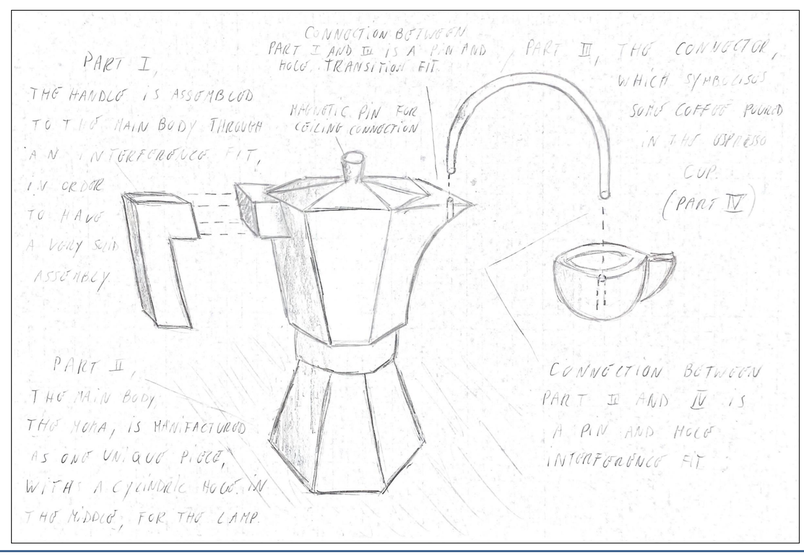
In Italy, people consider espresso as an essential part of the day with a spiritual meaning: after lunch, people drink their espresso together before going back to their jobs, discussing about their lives: therefore, no products other than a Moka pot shaped chandelier could better represent my Italian heritage. My ideation process was based on the UnTiED method, which allowed me to avoid self-imposing limits to my creativity, and its outcome was a very original mix in my opinion, because despite a Moka pot and a chandelier are something extremely different, some similarities in the shape and in the symbol they represent (enlightening and illuminating) still exist, and the final touch of adding the coffee poured in the cup made the combination even more unusually impressing. To conclude, the most fundamental design heuristic card used for my design was “Add to Existing product”, that gave me the idea to use an already existing product to come up with my design (but in my case by changing its functionality).

Thumbnail Sketches and Perspective View



Multi-views, Section Views and Assembly Drawings

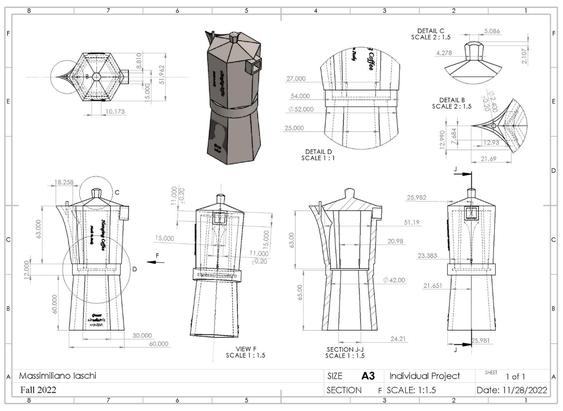


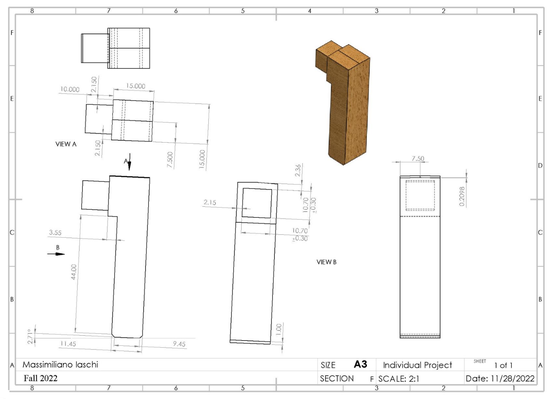


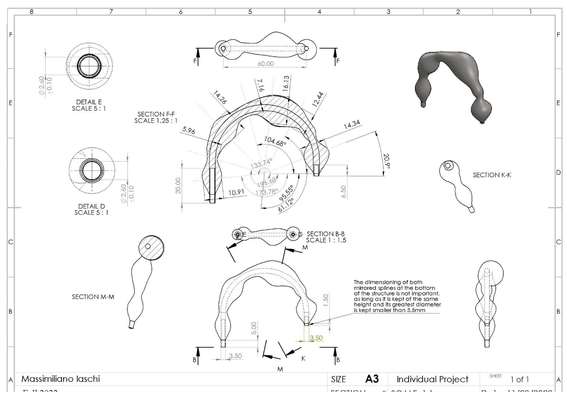
Rendered Part and Assembly Views

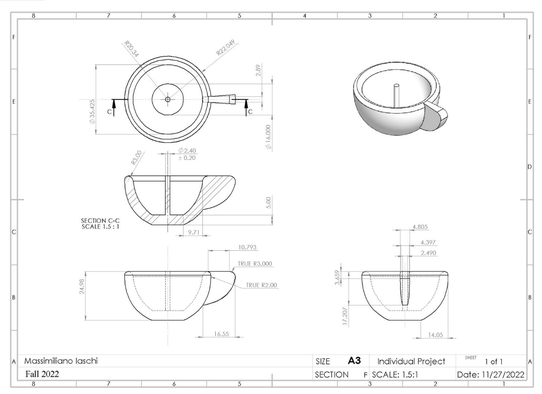
Georgia Tech

Part Working Drawings







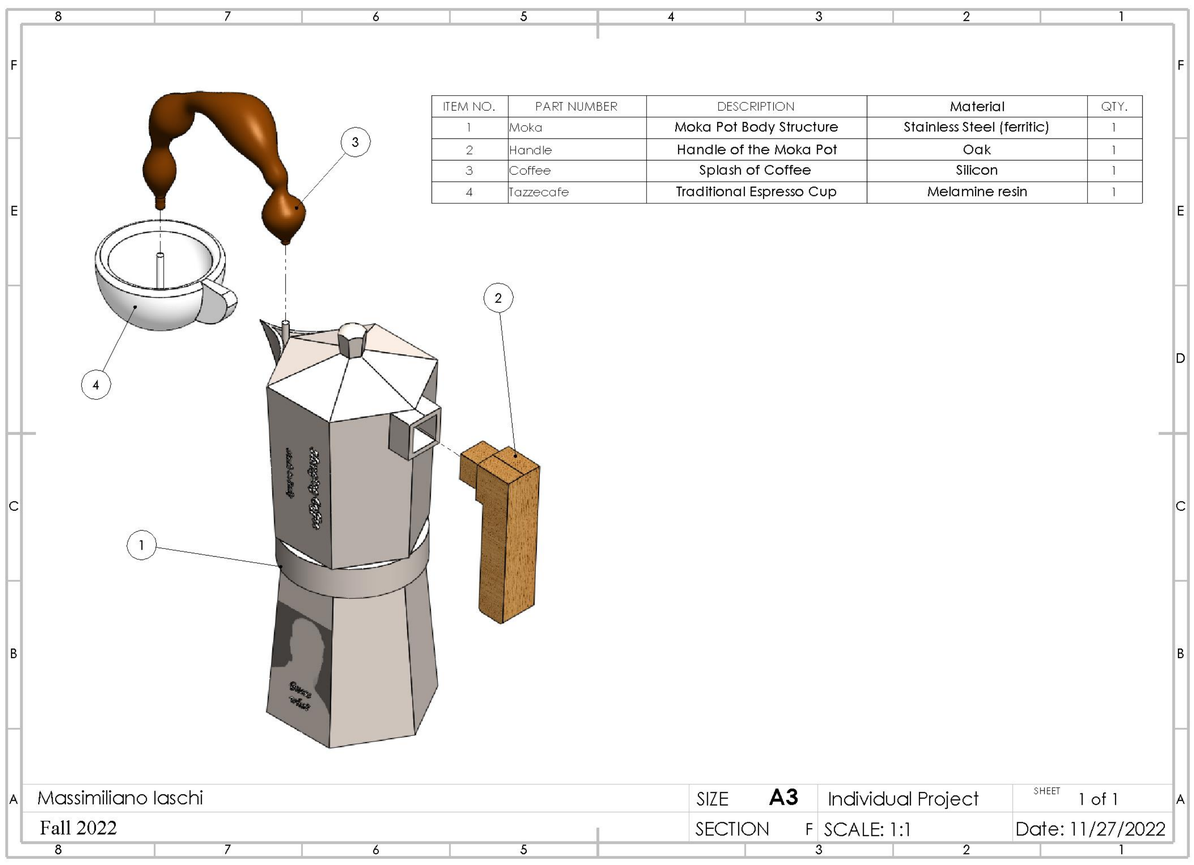


Dimensional Tolerance and GDT Tables

Part Name	Modeling Approach	Manufacturing Process	GD&T parameter to Control	Tolerance with Symbol
Moka Pot	Extrude & Loft & Revolve & Sweep & Mirror	Injection Molding	Symmetry, Flatness	0.20 mm
Handle	Extrude & Chamfer	Machining	Parallelism	0.30mm //
Spilled Coffee	Extrude & Revolve & Sweep & Loft	Injection Molding	Cylindricity, Profile of a Surface	0.10mm
Espresso Cup	Extrude & Revolve & Fillet & Mirror	Injection Molding	Circularity	0.20mm ○

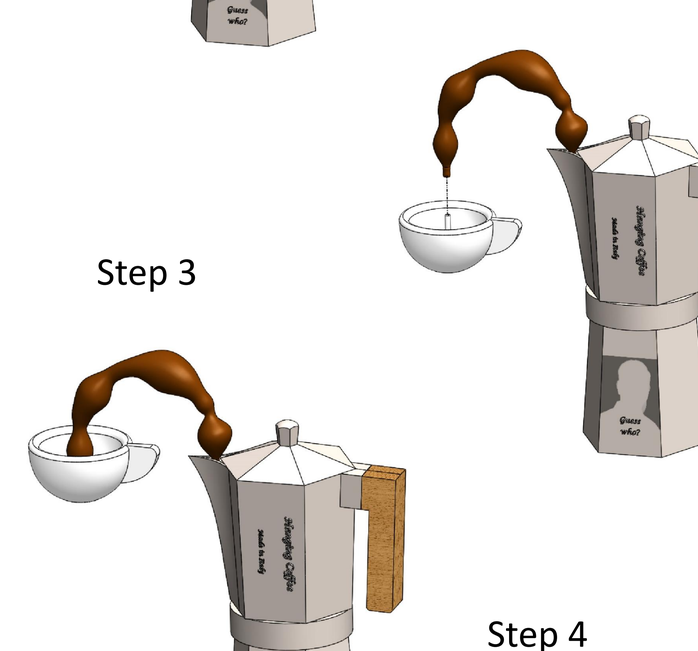
Parts in the Assembly	Fit Type	Dimensional Tolerance limit for Part A & B		Max Clearance or Interference (MMC/LMC)
Moka & Handle	Clearance	11.0 ± 0.20mm	10.8 ± 0.30mm	Clearance 0.70mm (LMC)
Moka & Coffee	Clearance	2.4 ± 0.20mm	2.60 ± 0.10mm	Clearance 0.50mm (LMC)
Cup & Coffee	Clearance	2.4 ± 0.20mm	2.60 ± 0.10mm	Clearance 0.50mm (LMC)

Exploded view with BOM Parts List



Assembly Instructions

Step 1



Step 2

Step 3

Step 4