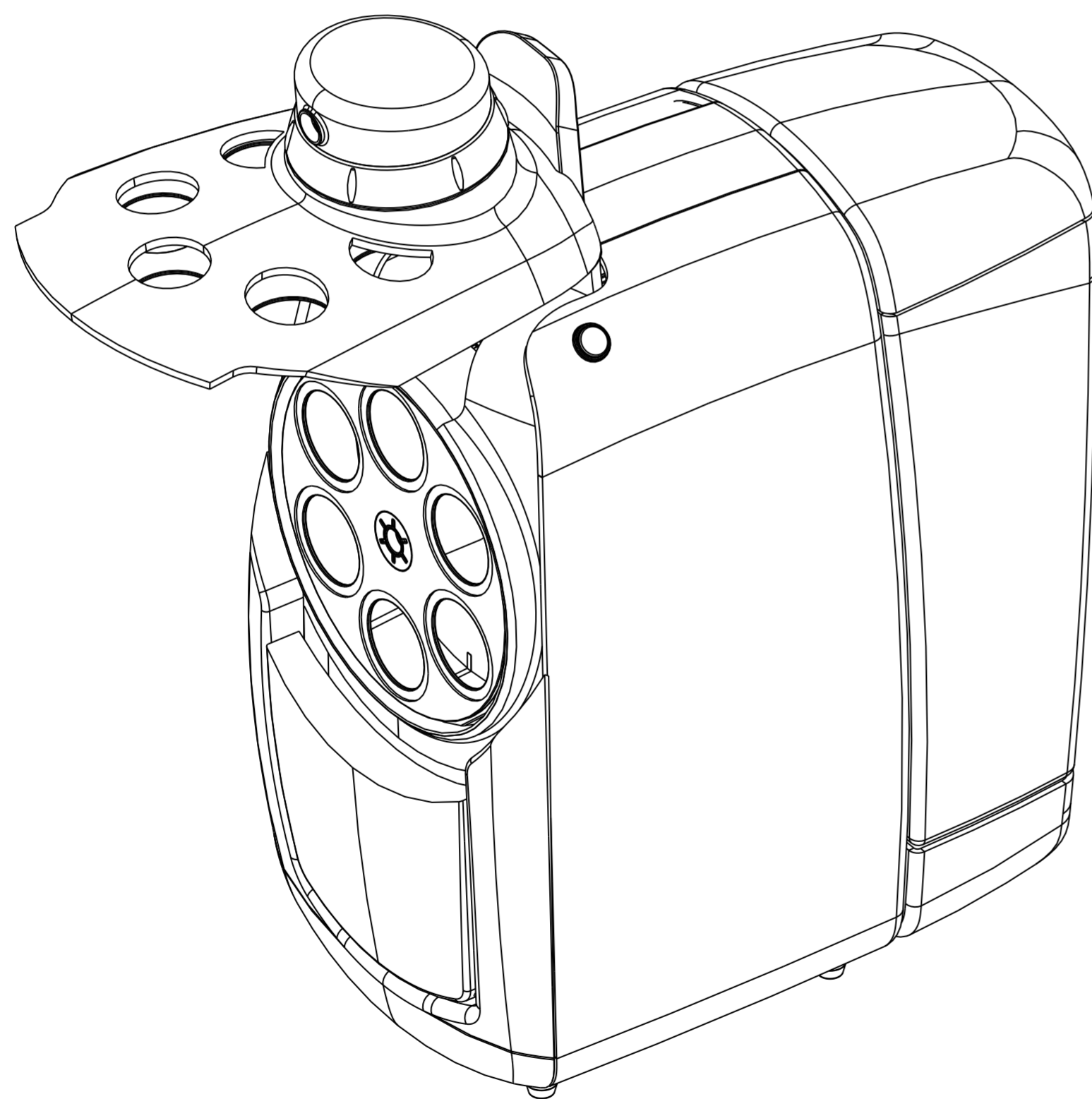
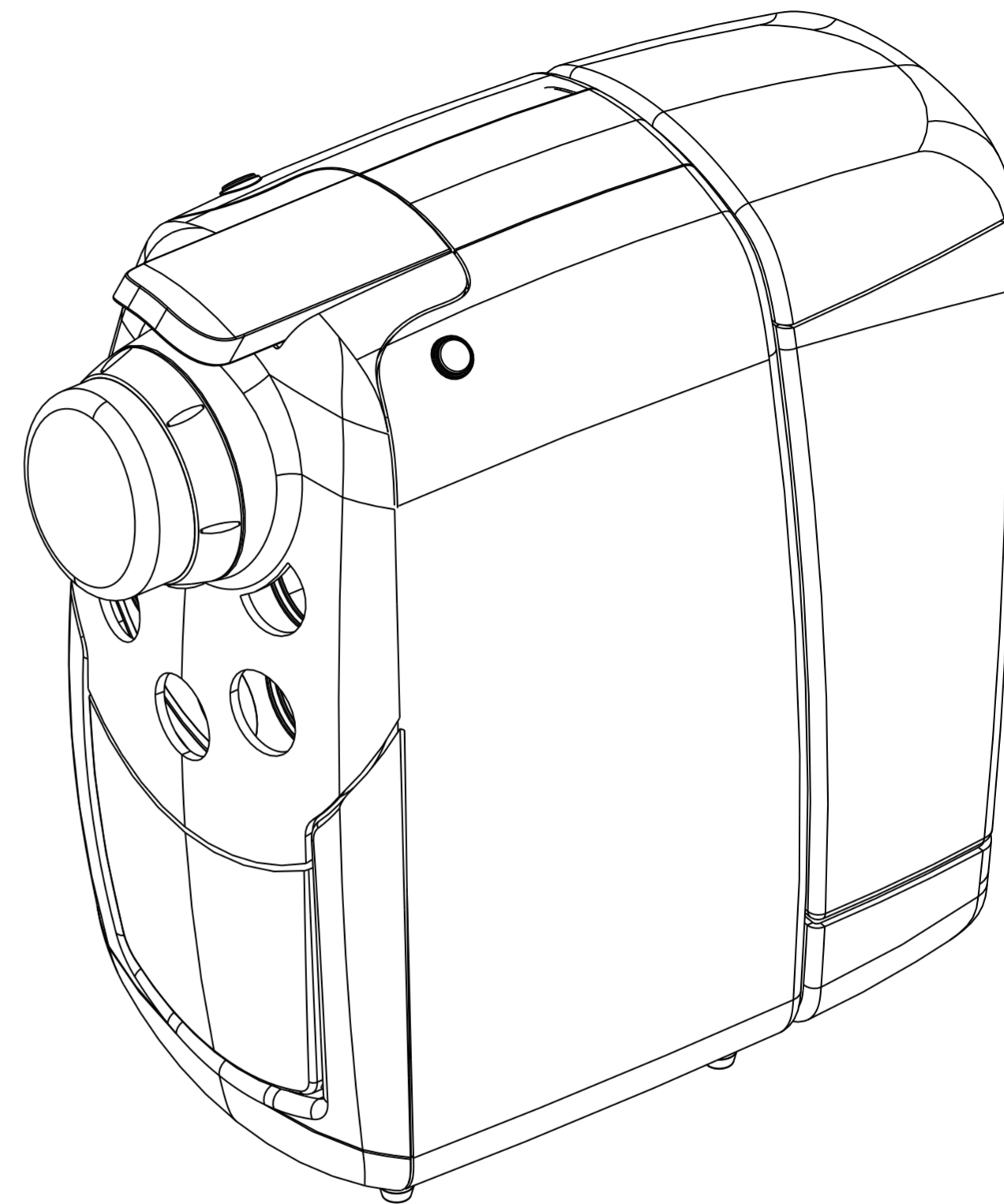


macchina per il caffè nuovo sistema di capsula.

1. aprire il coperchio, mettere dentro 5 capsule, lasciare un buco vuoto per acqua pulita, a volte per il tè.
2. chiudere il coperchio
3. tenere la maniglia di apertura. girare la manopola per scegliere la capsula che preferisci.
4. mettere giù la maniglia di spremere la capsula.
5. Premere il pulsante per fare il caffè.
6. dopo aver finito tutte le capsule, aprire il coperchio, tirarli fuori.



aprire il coperchio



chiudere il coperchio

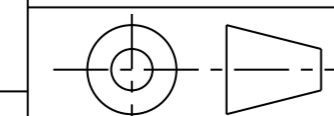


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Titolo di Tesi:
Nuovo sistema di capsule per la macchina da caffè' per Nespresso

28 giugno 2010

Relatore: Matteo.Ingaramo Correlatore: Gorno Roberta Studente:Jian Ma - 720344

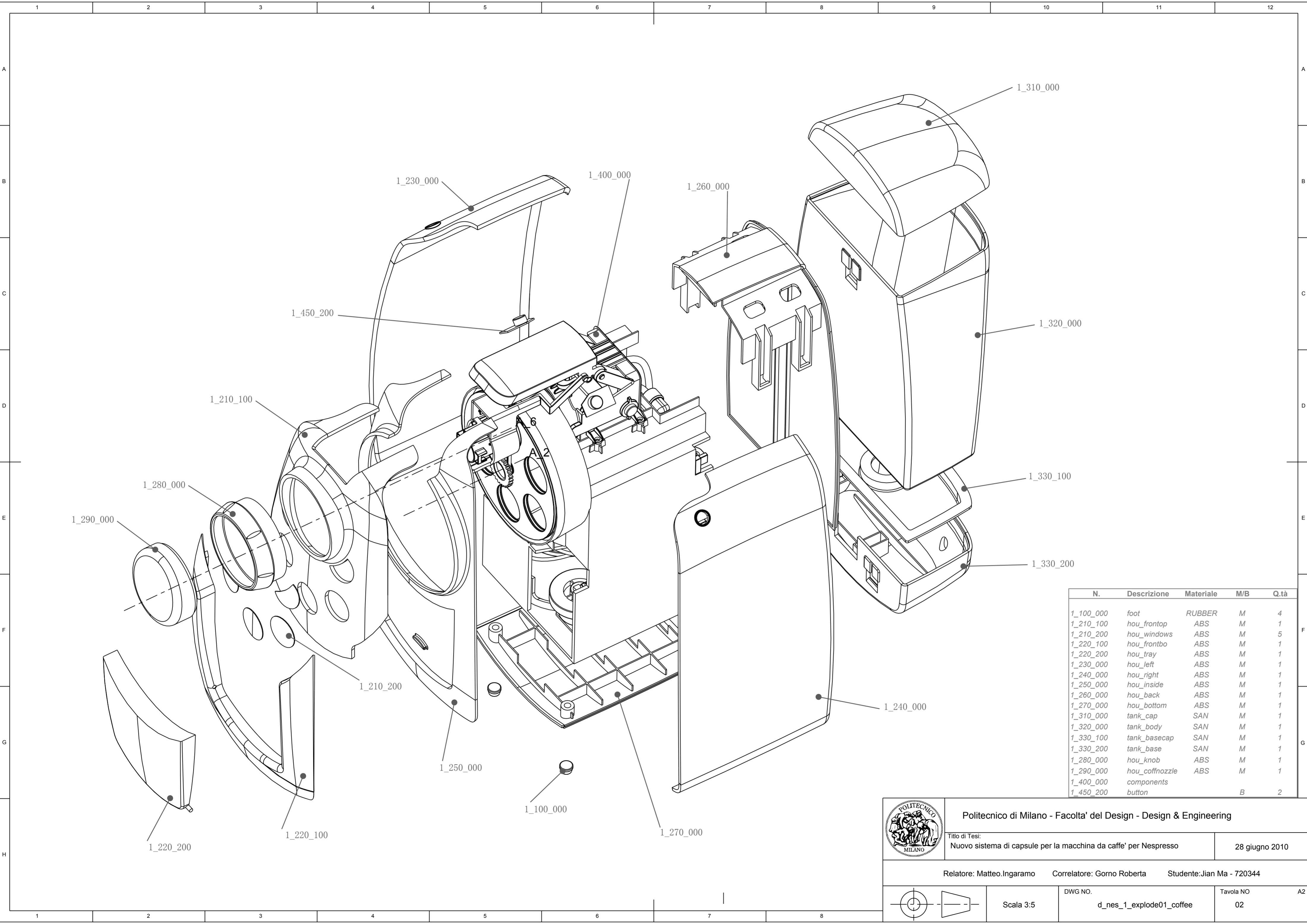


Scala 3:5

DWG NO.
d_nes_1_01_product_view

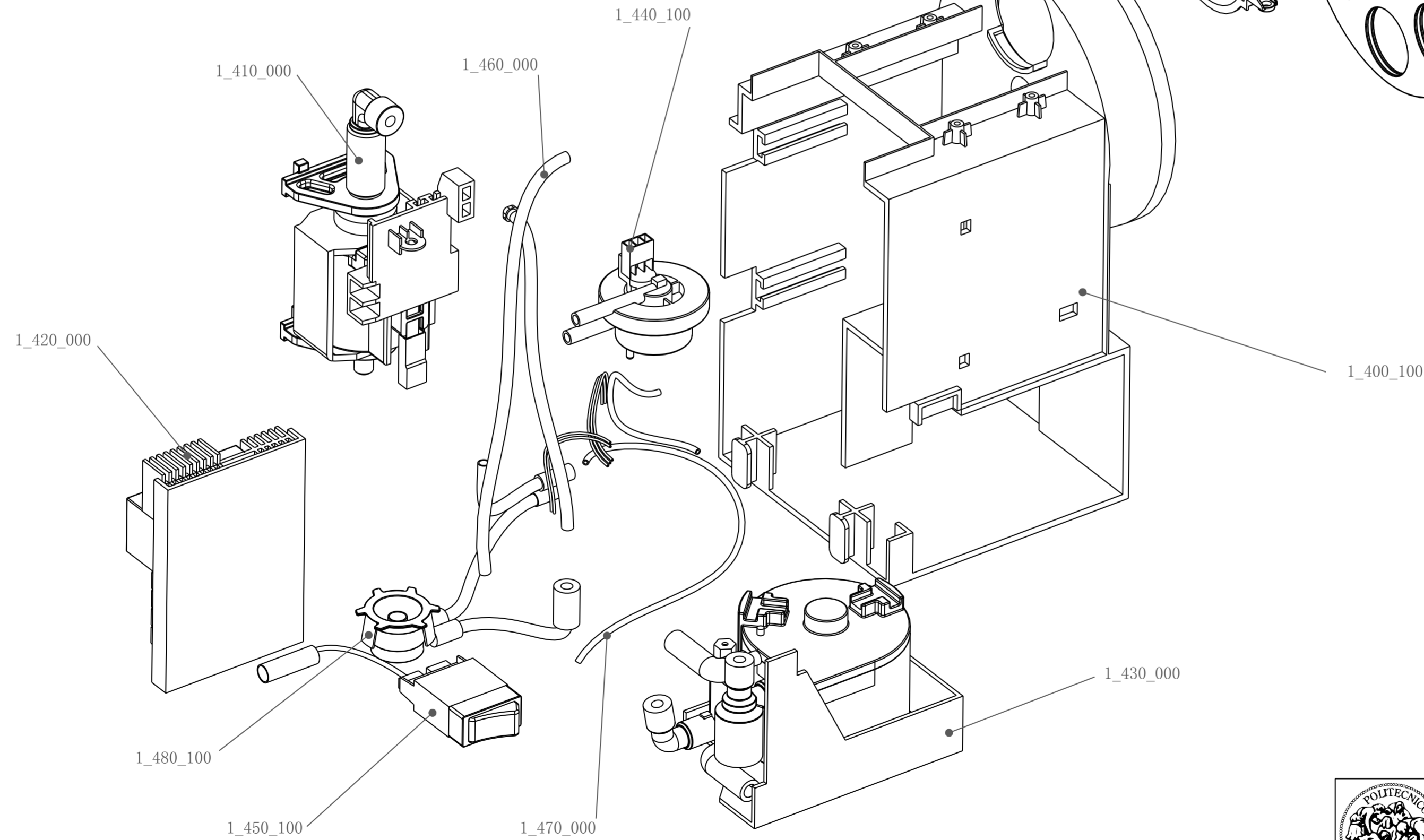
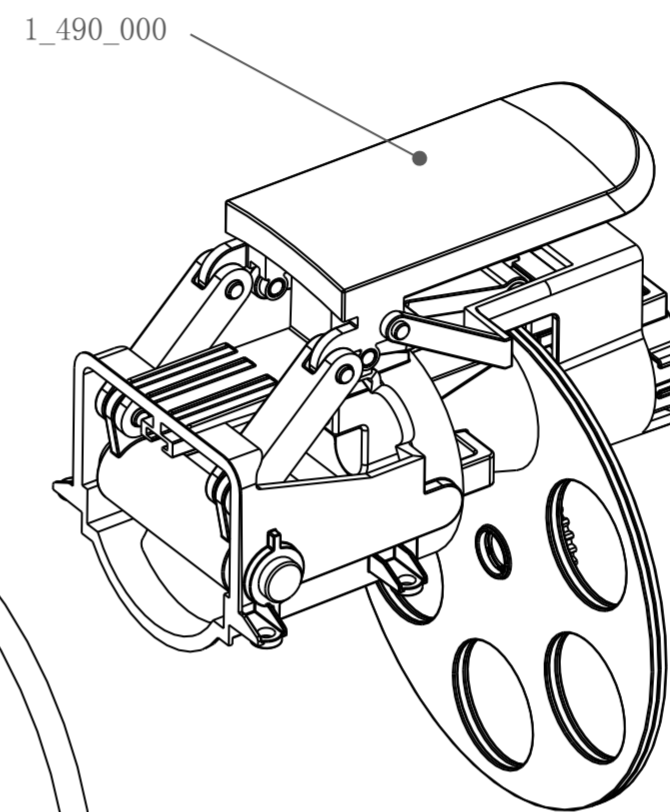
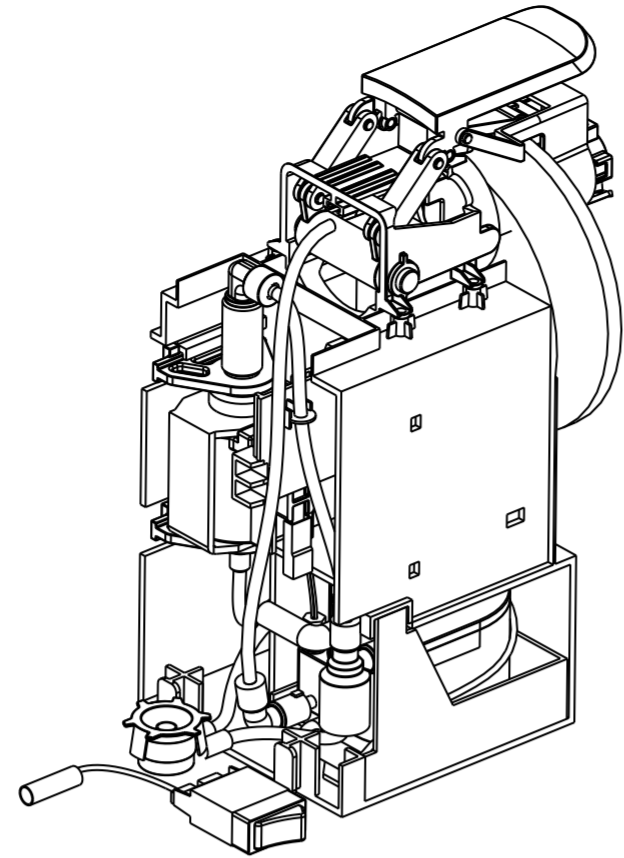
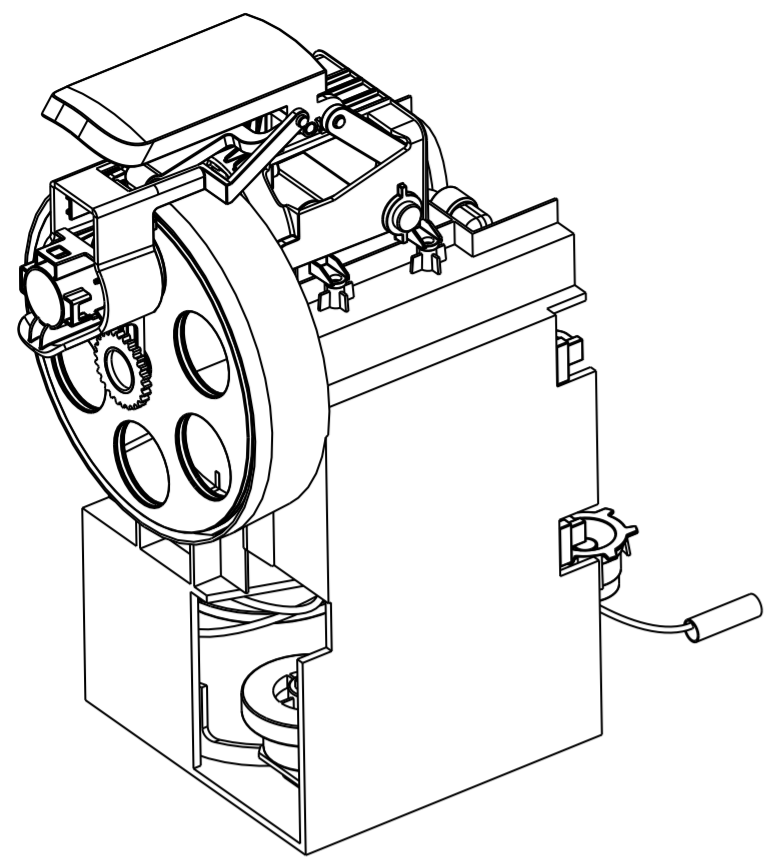
Tavola NO
01

A2



N.	Descrizione	Materiale	M/B	Q.tà
1_100_000	foot	RUBBER	M	4
1_210_100	hou_frontop	ABS	M	1
1_210_200	hou_windows	ABS	M	5
1_220_100	hou_frontbo	ABS	M	1
1_220_200	hou_tray	ABS	M	1
1_230_000	hou_left	ABS	M	1
1_240_000	hou_right	ABS	M	1
1_250_000	hou_inside	ABS	M	1
1_260_000	hou_back	ABS	M	1
1_270_000	hou_bottom	ABS	M	1
1_310_000	tank_cap	SAN	M	1
1_320_000	tank_body	SAN	M	1
1_330_100	tank_basecap	SAN	M	1
1_330_200	tank_base	SAN	M	1
1_280_000	hou_knob	ABS	M	1
1_290_000	hou_coffinozzle	ABS	M	1
1_400_000	components			
1_450_200	button		B	2

	Politecnico di Milano - Facolta' del Design - Design & Engineering	
	Titolo di Tesi: Nuovo sistema di capsule per la macchina da caffe' per Nespresso	28 giugno 2010
Relatore: Matteo.Ingaramo Correlatore: Gorno Roberta Studente:Jian Ma - 720344		
	Scala 3:5	DWG NO. d_nes_1_explode01_coffee
		Tavola NO 02



N.	Descrizione	Materiale	M/B	Q.tà
1_400_000	components			
1_400_100	structure	ABS		1
1_410_000	pump		B	1
1_420_000	pcb		B	1
1_430_000	boiler		B	1
1_440_100	valve01		B	1
1_450_100	power_switch		B	1
1_460_000	pipe		B	5
1_470_000	wire		B	
1_480_100	water_nozzle	ABS	M	1
1_490_000	capsule_sys			

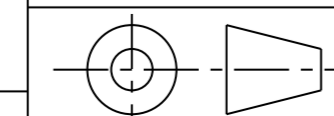


Politecnico di Milano - Facolta' del Design - Design & Engineering

Titolo di Tesi:
Nuovo sistema di capsule per la macchina da caffe' per Nespresso

28 giugno 2010

Relatore: Matteo Ingaramo Correlatore: Gorno Roberta Studente: Jian Ma - 720344



Scala 3:5

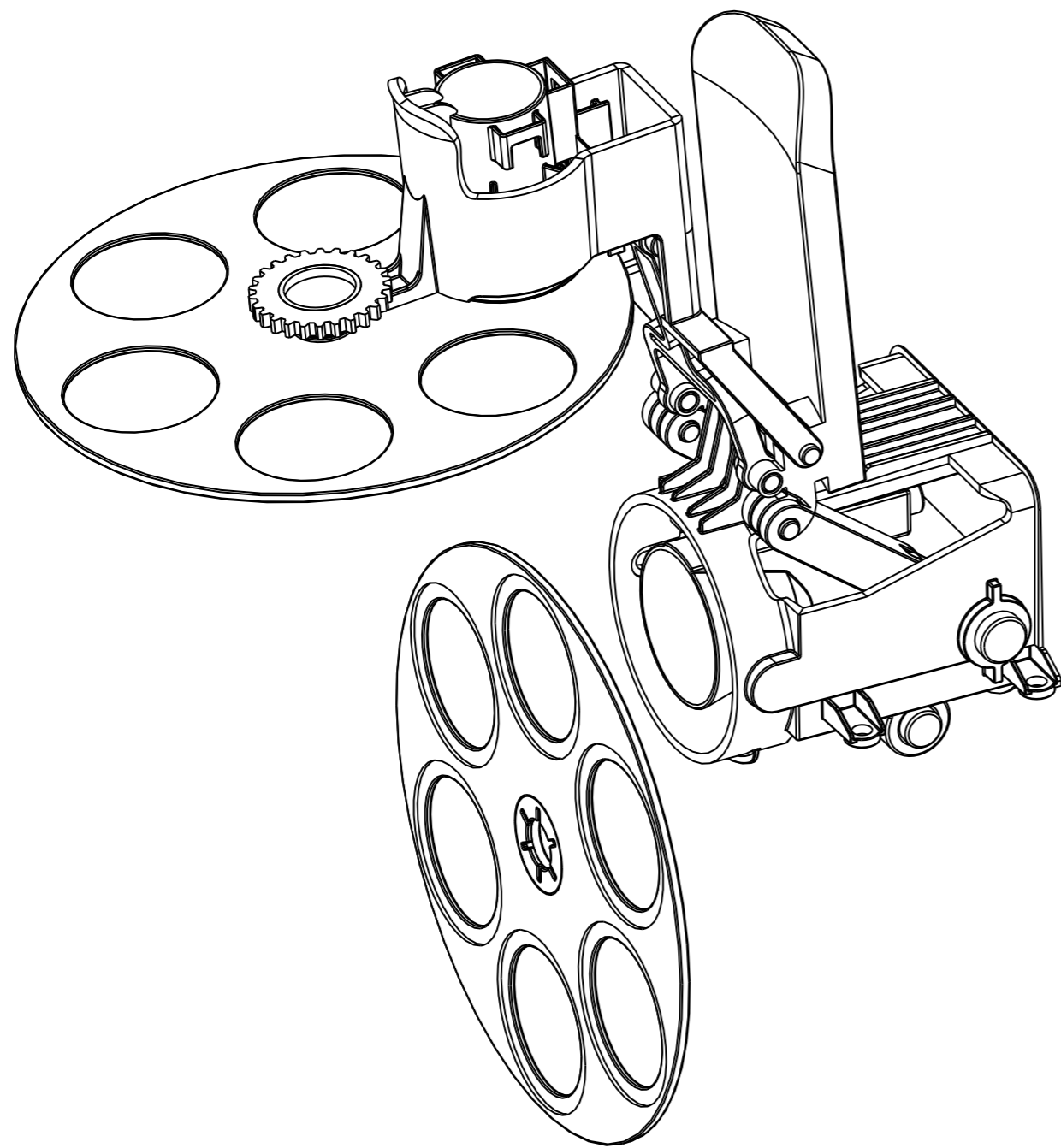
DWG NO.
d_nes_1_explode01_coffee

Tavola NO
03

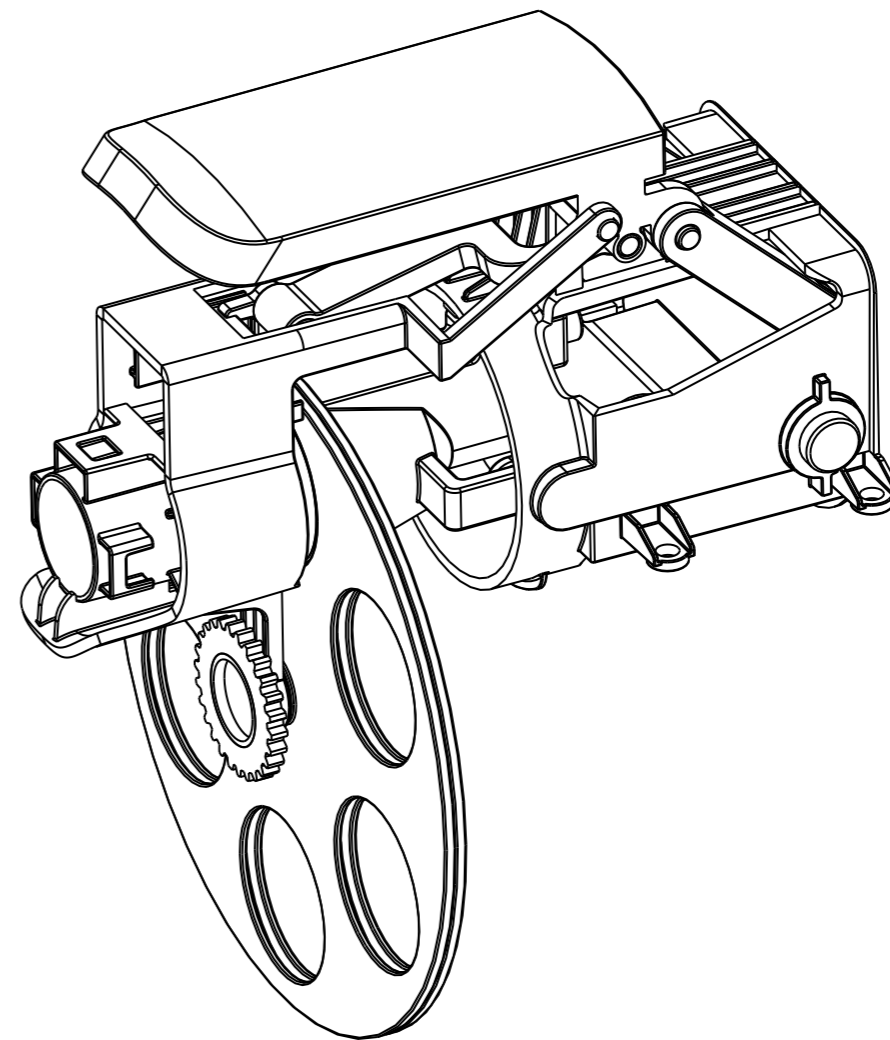
A2

1 2 3 4 5 6 7 8

A
B
C
D
E
F



aperto



chiuso



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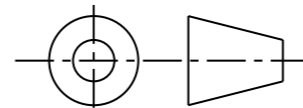
Titolo di Tesi:
Nuovo sistema di capsule per la macchina da caffe' per Nespresso

28 giugno 2010

Relatore: Matteo.Ingaramo

Correlatore: Gorno Roberta

Studente: Jian Ma - 720344



Scala 4:5

DWG NO.

d_nes_1_04_capsule_system

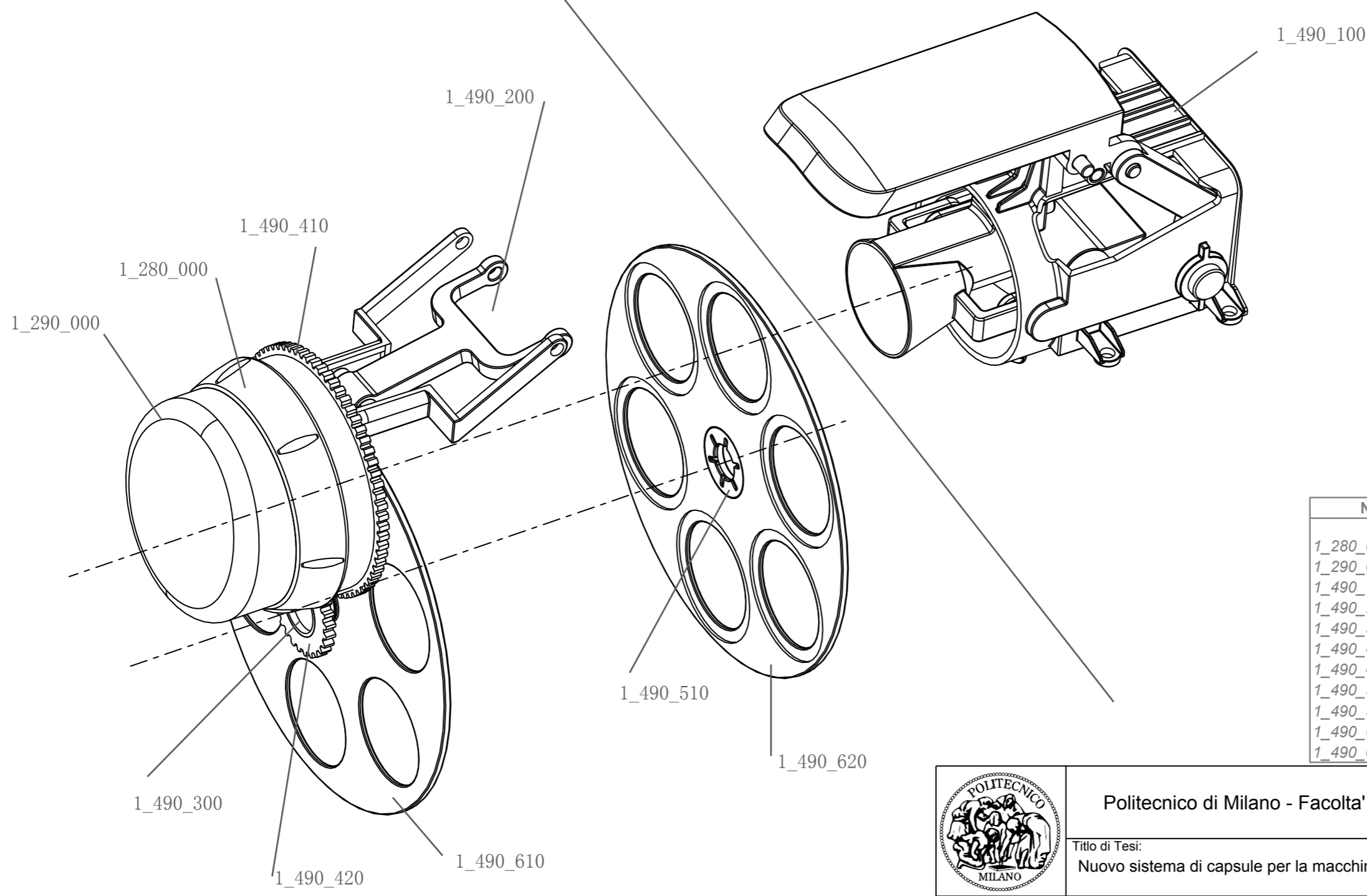
Tavola NO

04

A3

1 2 3 4

la parte nuova del sistema



N.	Descrizione	Materiale	M/B	Q.tà
1_280_000	hou_knob	ABS	M	1
1_290_000	hou_coffnozzle	ABS	M	1
1_490_100	base part	PBT GF	M	1
1_490_200	cap_part	PBT GF	M	1
1_490_300	shaft_pin	PBT GF	M	1
1_490_410	gear01	PBT GF	M	1
1_490_420	gear02	PBT GF	M	1
1_490_510	clutch1	PBT GF	M	1
1_490_520	clutch02	PBT GF	M	1
1_490_610	wheel01	PBT GF	M	1
1_490_620	wheel02	PBT GF	M	1

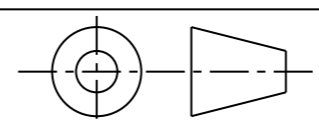


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Titolo di Tesi:
Nuovo sistema di capsule per la macchina da caffe' per Nespresso

28 giugno 2010

Relatore: Matteo.Ingaramo Correlatore: Gorno Roberta Studente: Jian Ma - 720344



Scala 4:5

DWG NO. d_nes_1_05_explode_system Tavola NO 05 A3

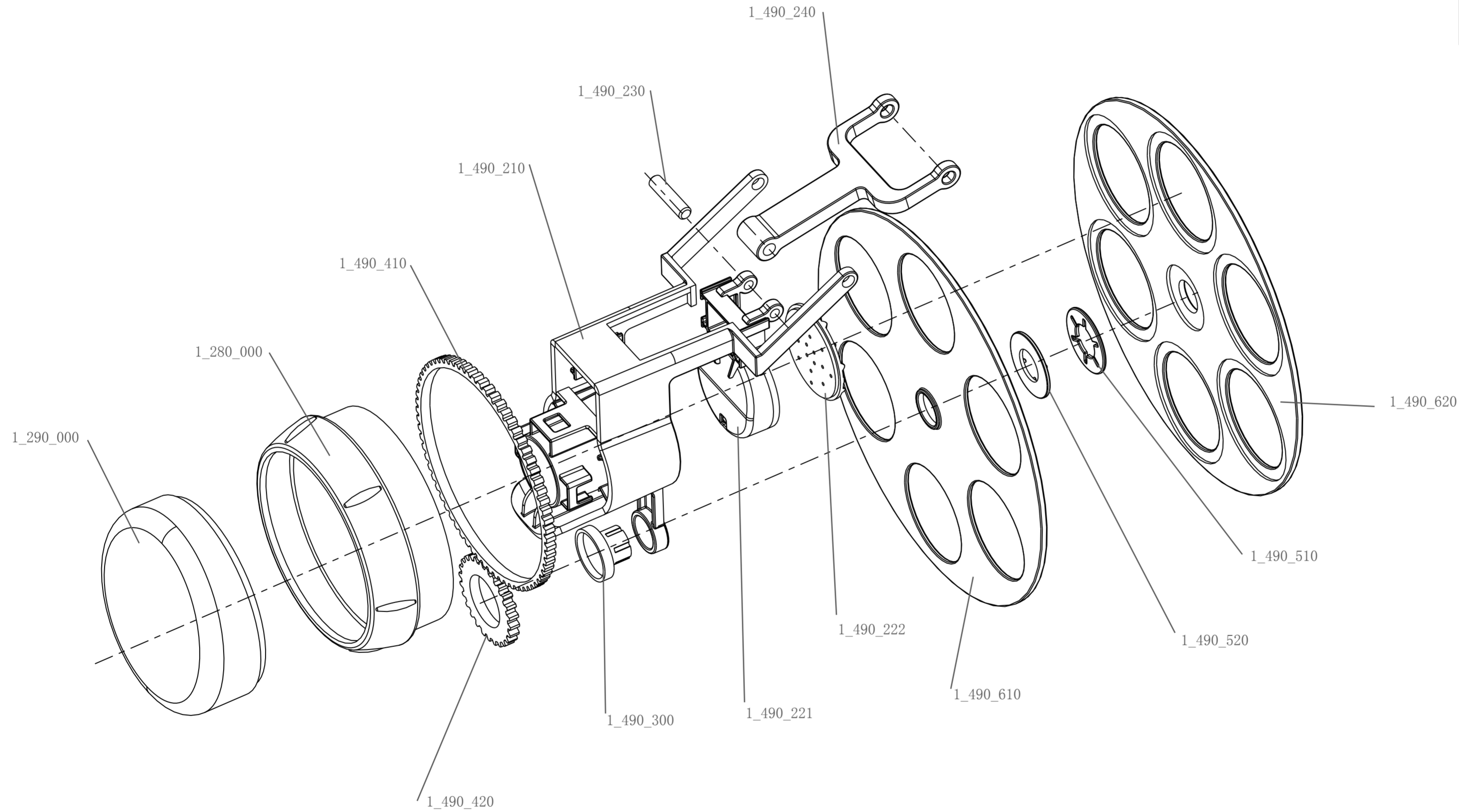
1.girare la manopola (1_280_000), il gearing (1_490_410/420) trasferire la rotazione al shaft pin (1_490_300) per rendere le ruote (1_490_610/620) insieme a rotazione e fermata in ogni angolo di 60 gradi
 2.head set (1_490_221/222) infilare il cap (1_490_210) per spremere la capsula e permettere alle ruote di rotazione

le seguenti parti in contatto con la colla

1_490_420	1_490_221	1_490_510
1_490_300	1_490_222	1_490_620
1_490_610		1_280_000
1_490_520		1_490_410

le seguenti parti in contatto con snap

1_290_000
1_490_210



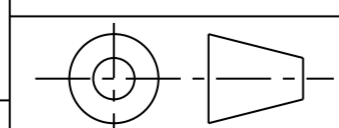
N.	Descrizione	Materiale	M/B	Q.tà
1_280_000	hou_knob	ABS	M	1
1_290_000	hou_coffnozzle	ABS	M	1
1_490_200	cap_part	PBT GF	M	1
1_490_210	cap	PBT GF	M	1
1_490_221	head01	PBT GF	M	1
1_490_222	head02	PBT GF	M	1
1_490_230	head_pin		M	
1_490_240	head_lever	PBT GF	M	1
1_490_300	shaft_pin	PBT GF	M	1
1_490_410	gear01	PBT GF	M	1
1_490_420	gear02	PBT GF	M	1
1_490_510	clutch1	PBT GF	M	1
1_490_520	clutch02	PBT GF	M	1
1_490_610	wheel01	PBT GF	M	1
1_490_620	wheel02	PBT GF	M	1



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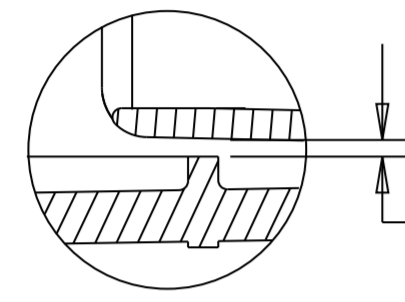
Titolo di Tesi: Nuovo sistema di capsule per la macchina da caffè' per Nespresso 28 giugno 2010

Relatore: Matteo.Ingaramo Correlatore: Gorno Roberta Studente:Jian Ma - 720344



Scala 1:1 DWG NO. d_nes_1_06_explode_cap part Tavola NO 06 A2

permettere solo caffè liquido che scorre in avanti
e permettere head set in movimento avanti e indietro

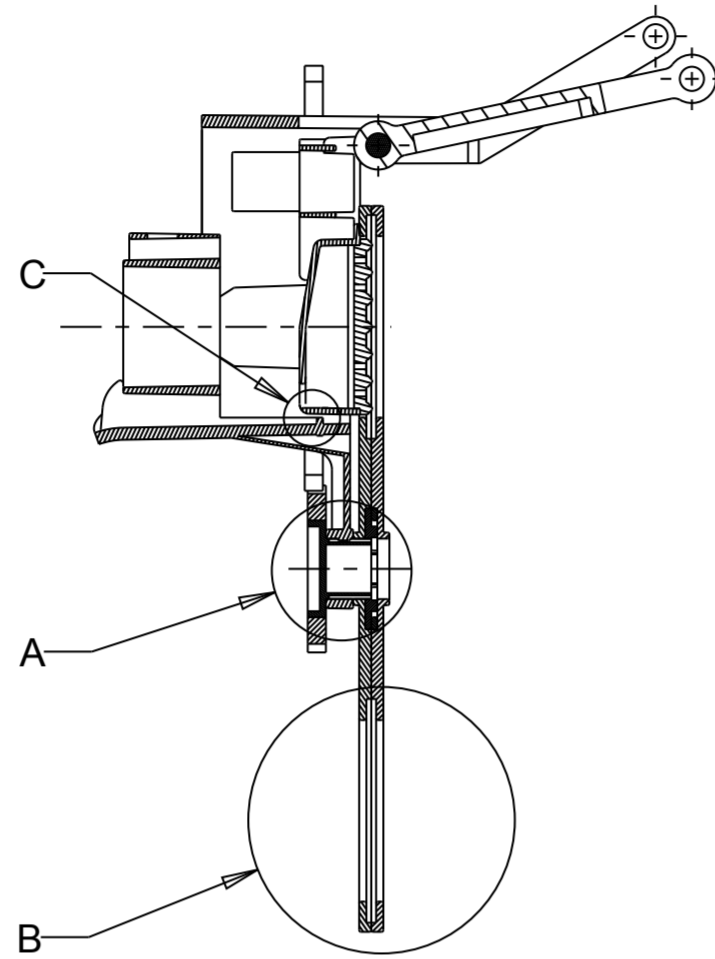


DETAIL C
SCALE 4.

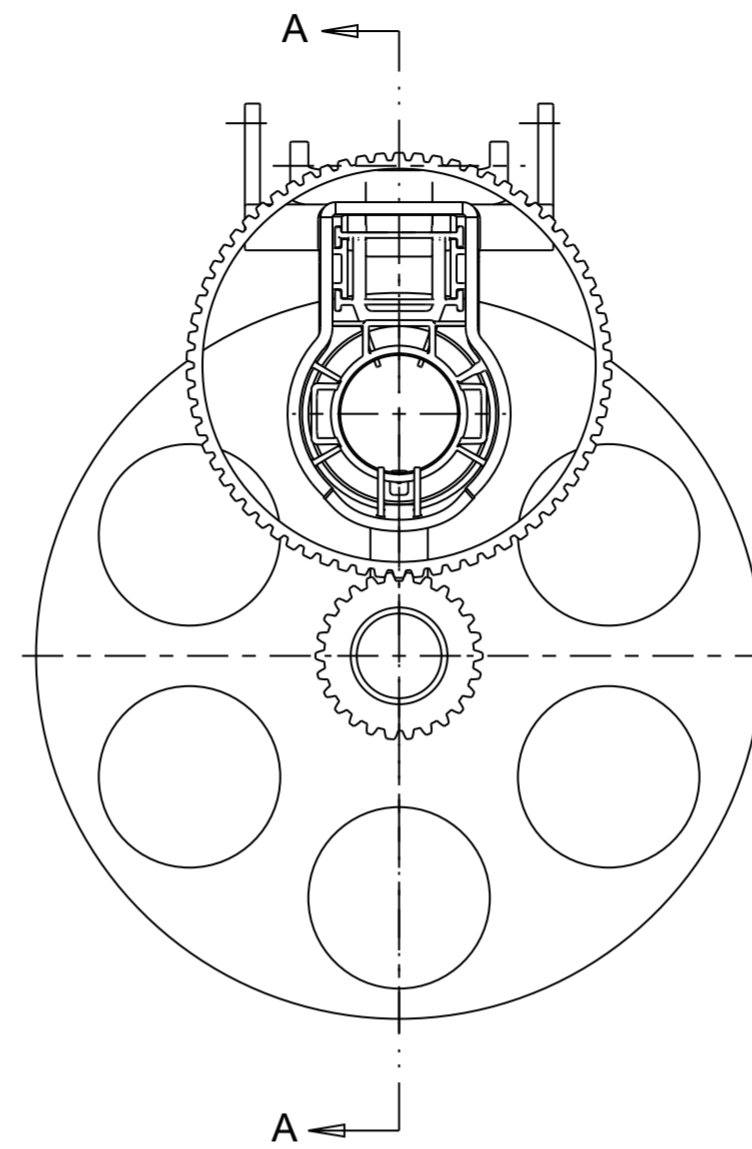
SEE DETAIL

SEE DETAIL

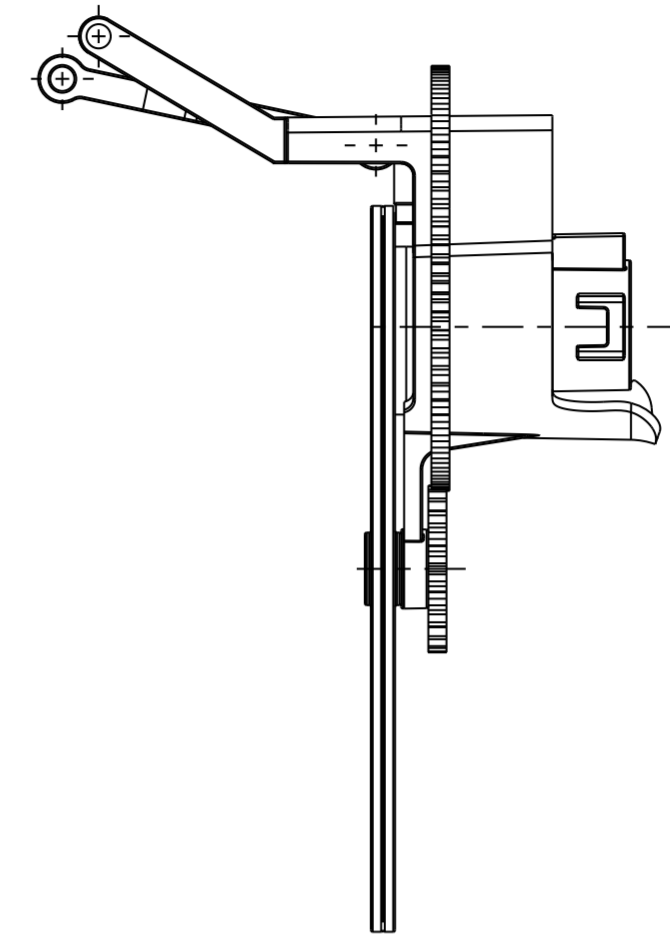
SEE DETAIL



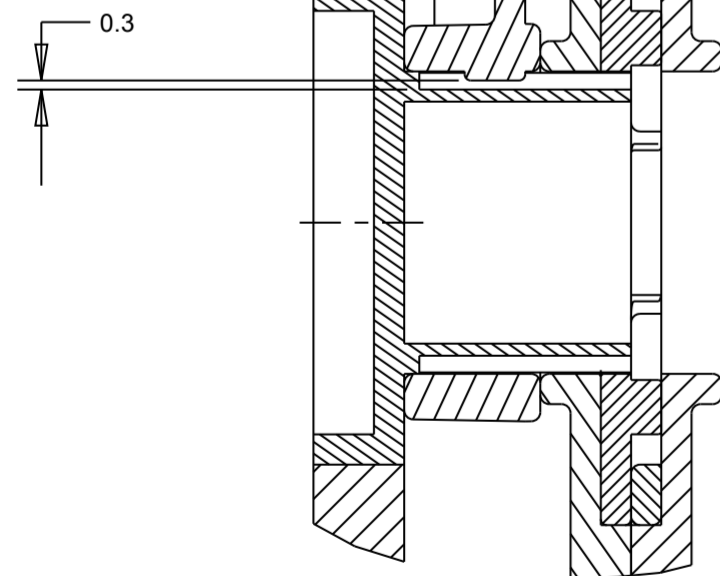
SECTION A-A



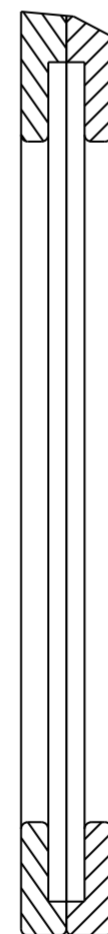
SCALE 0.8



questo divario è di smettere di ruotare per ogni angolo di 60 gradi

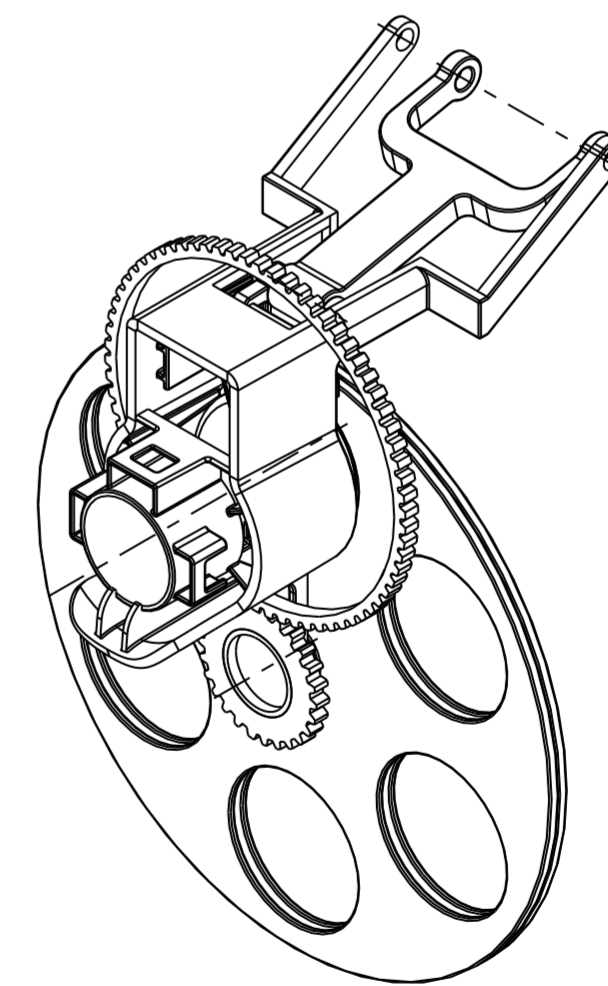
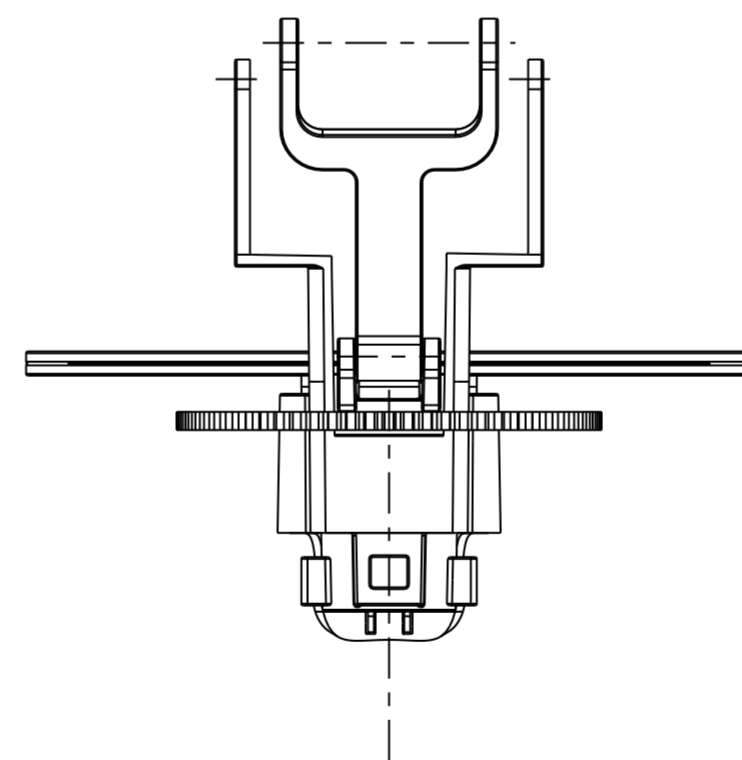


DETAIL A
SCALE 4.



per contenere la capsula

DETAIL B
SCALE 3.

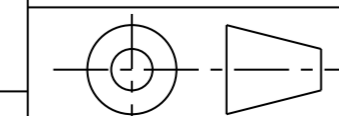


Politecnico di Milano - Facoltà' del Design - Design & Engineering

Titolo di Tesi:
Nuovo sistema di capsule per la macchina da caffè' per Nespresso

28 giugno 2010

Relatore: Matteo Ingaramo Correlatore: Gorno Roberta Studente: Jian Ma - 720344

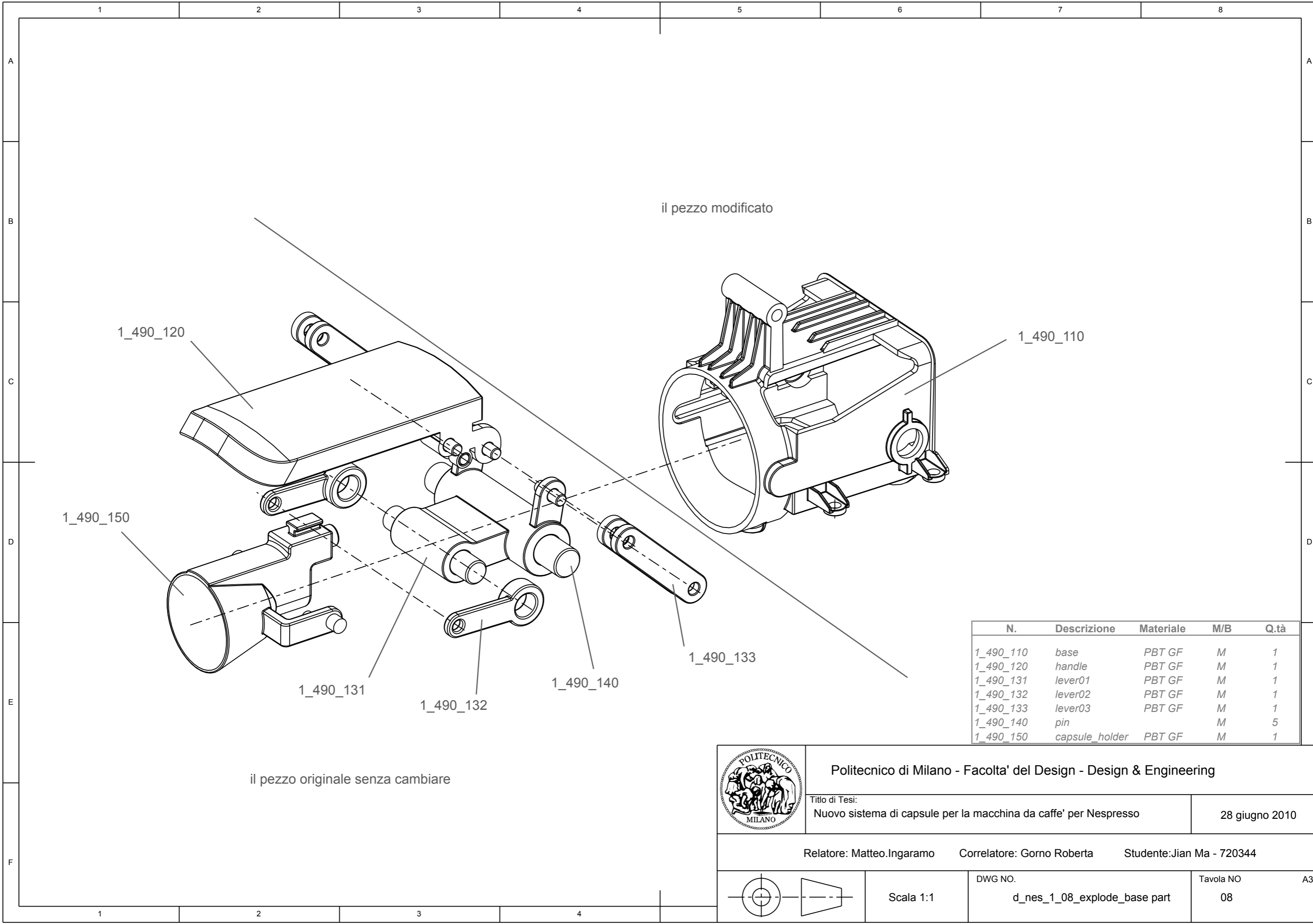


Scala 4:5

DWG NO.
d_nes_1_07_assembly_cap part

Tavola NO
07

A2



il pezzo modificato

il pezzo originale senza cambiare

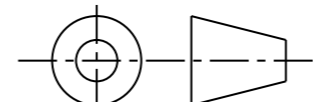
N.	Descrizione	Materiale	M/B	Q.tà
1_490_110	base	PBT GF	M	1
1_490_120	handle	PBT GF	M	1
1_490_131	lever01	PBT GF	M	1
1_490_132	lever02	PBT GF	M	1
1_490_133	lever03	PBT GF	M	1
1_490_140	pin		M	5
1_490_150	capsule_holder	PBT GF	M	1



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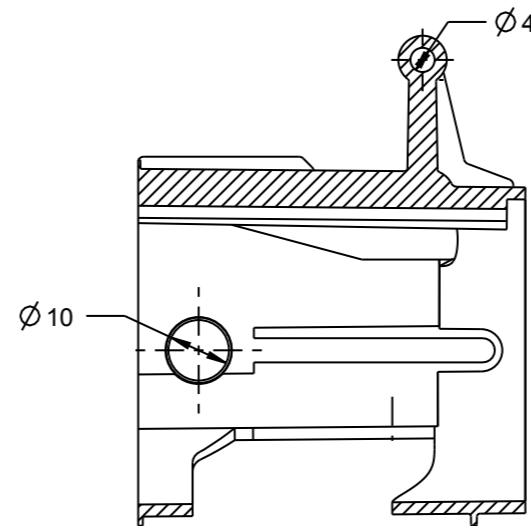
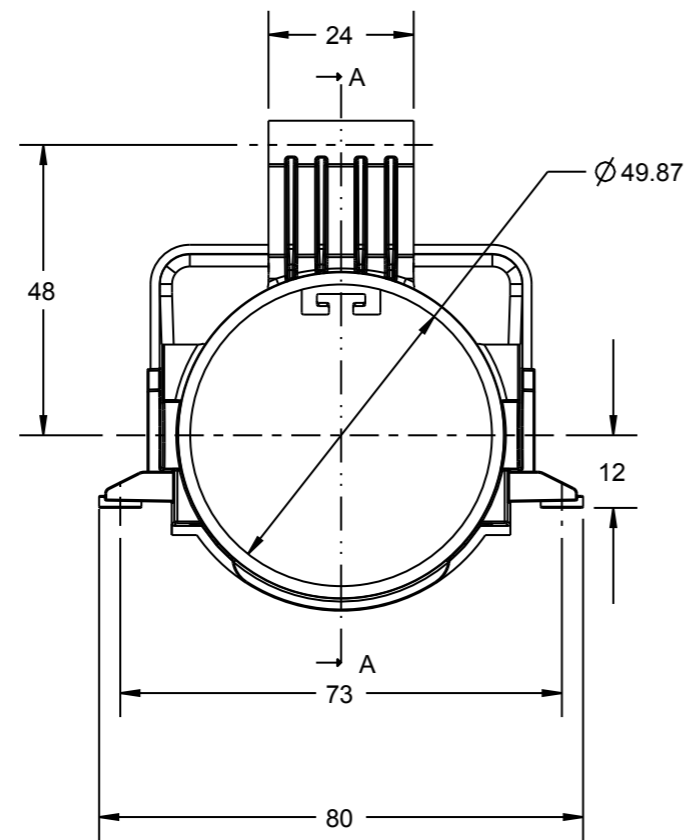
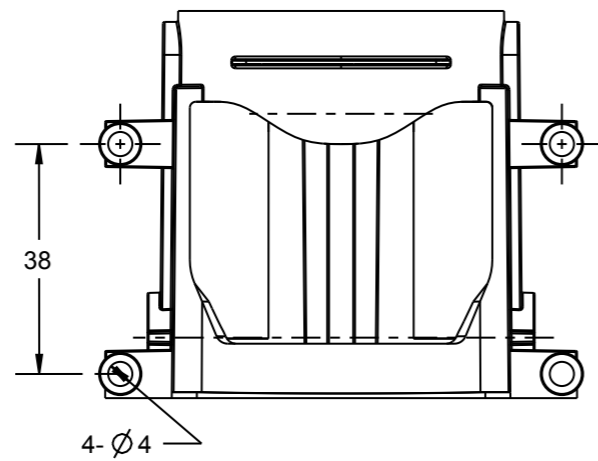
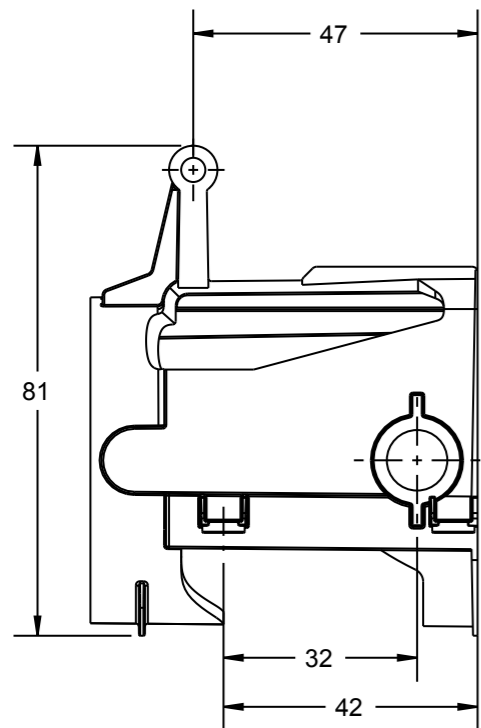
Titolo di Tesi: Nuovo sistema di capsule per la macchina da caffe' per Nespresso
 28 giugno 2010

Relatore: Matteo.Ingaramo Correlatore: Gorno Roberta Studente: Jian Ma - 720344

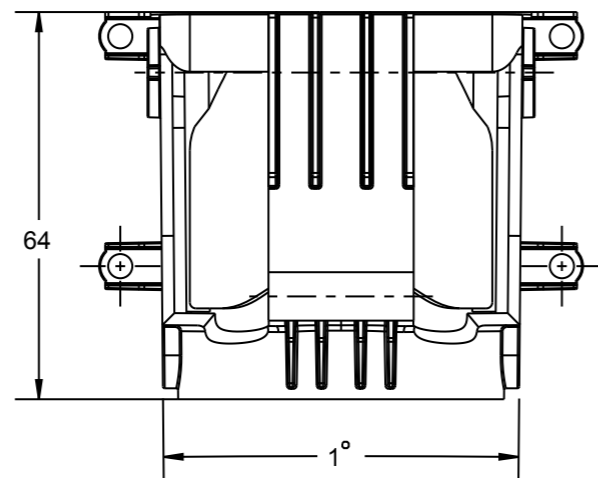
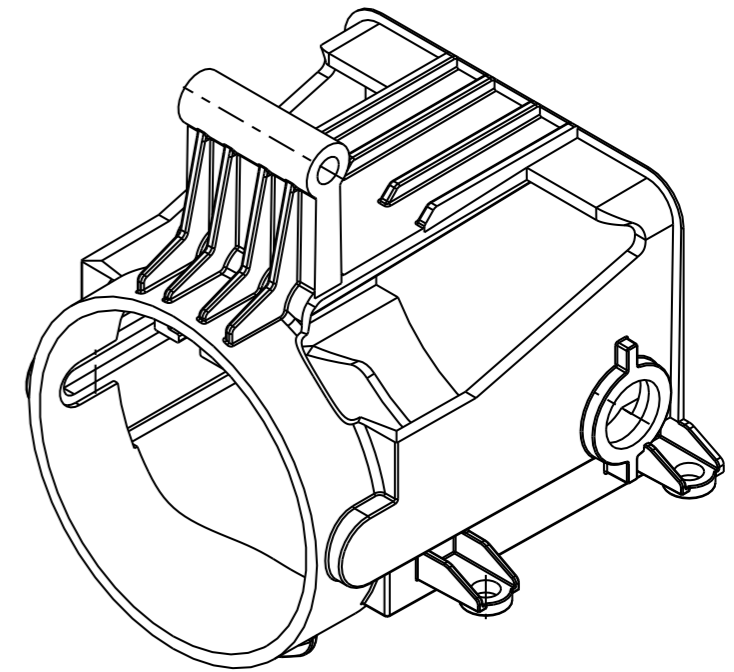


Scala 1:1

DWG NO. d_nes_1_08_explode_base part Tavola NO 08 A3



SECTION A-A



tutto altro draft angle sarebbe 0.5 gradi
 spessore massimo: 2 mm
 unit: mm



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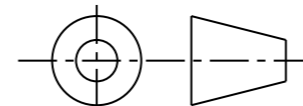
Titolo di Tesi:
 Nuovo sistema di capsule per la macchina da caffe' per Nespresso

28 giugno 2010

Relatore: Matteo.Ingaramo

Correlatore: Gorno Roberta

Studente: Jian Ma - 720344



Scala 4:5

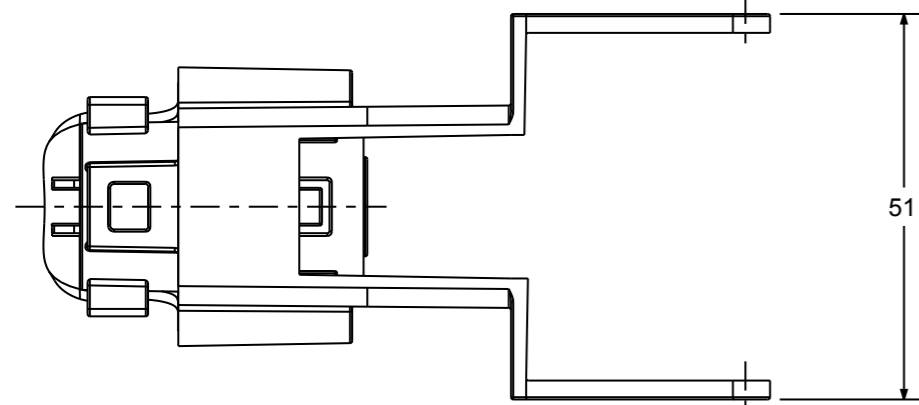
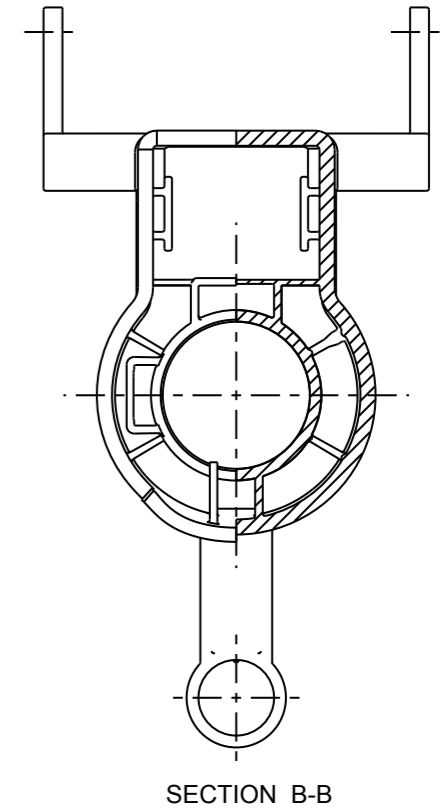
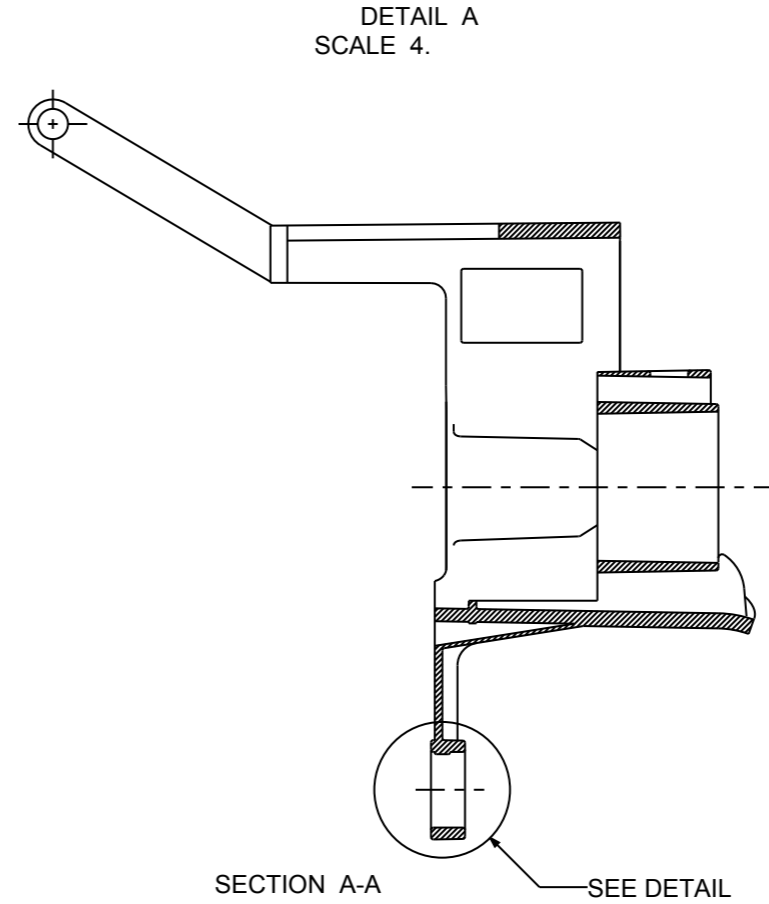
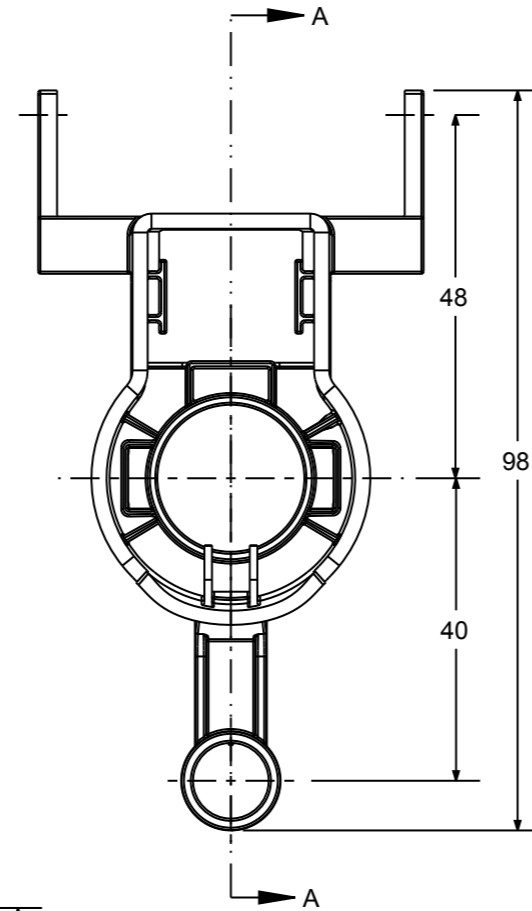
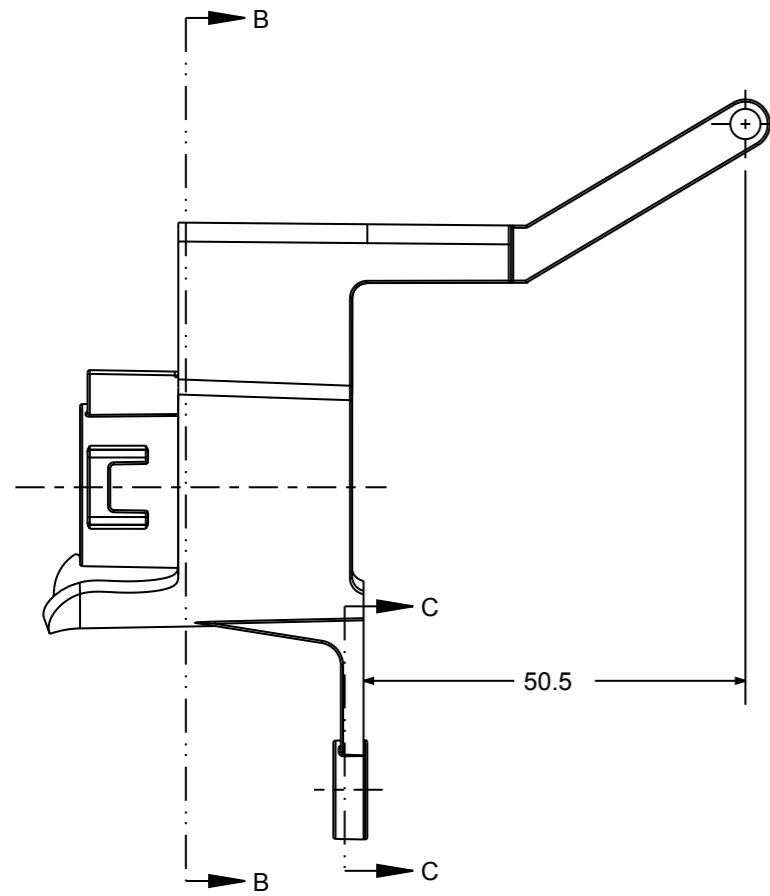
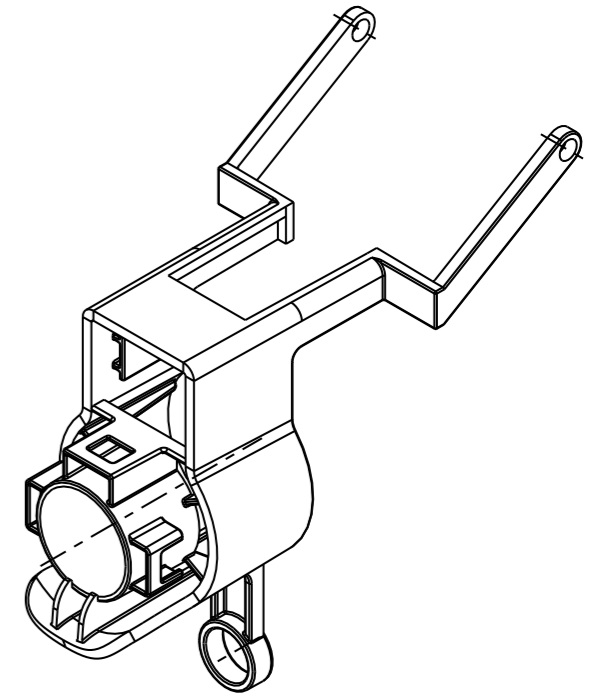
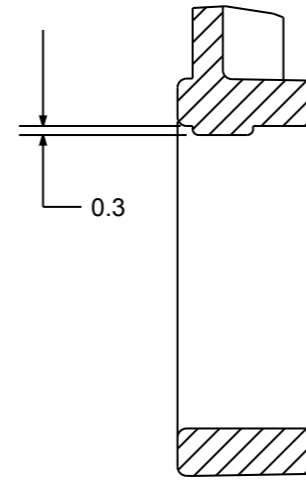
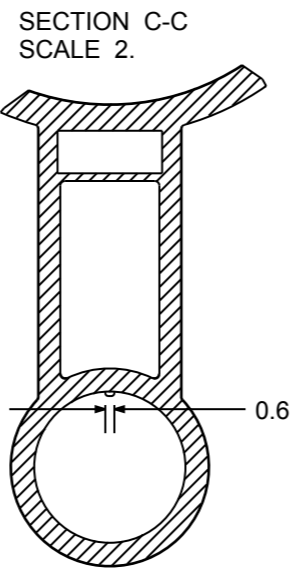
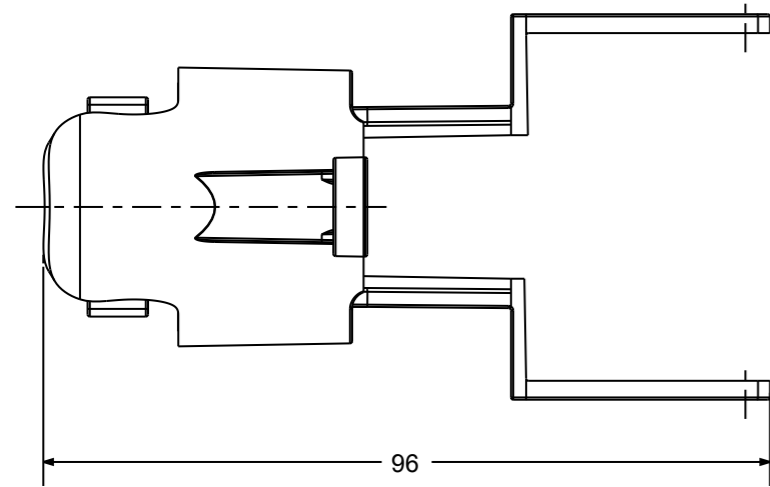
DWG NO.

d_nes_1_09_part_base

Tavola NO

09

A3



tutto altro draft angle sarebbe 0.5 gradi
spessore massimo: 2 mm
unit: mm



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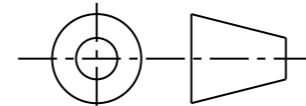
Titolo di Tesi:
Nuovo sistema di capsule per la macchina da caffe' per Nespresso

28 giugno 2010

Relatore: Matteo.Ingaramo

Correlatore: Gorno Roberta

Studente: Jian Ma - 720344



Scala 1:1

DWG NO.

d_nes_1_10_part_cap

Tavola NO

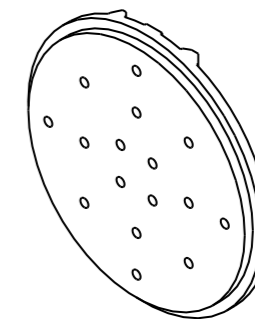
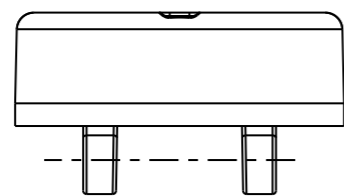
10

A3

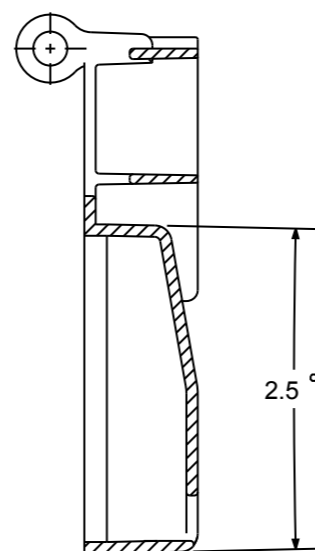
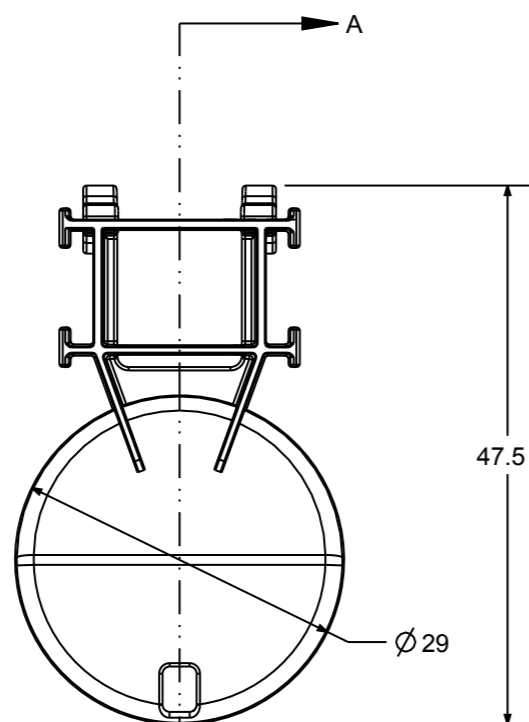
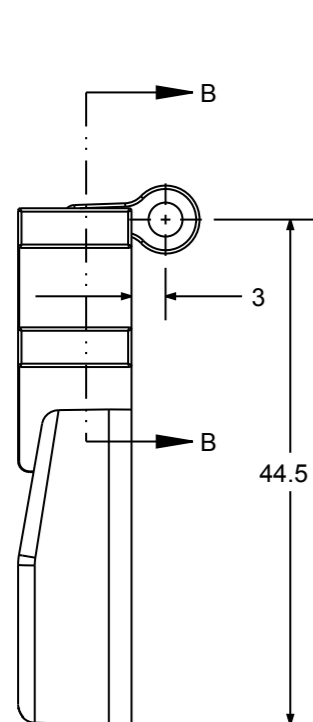
head1

tutto altro draft angle sarebbe 1 gradi
spessore massimo: 2 mm
unit: mm

head2

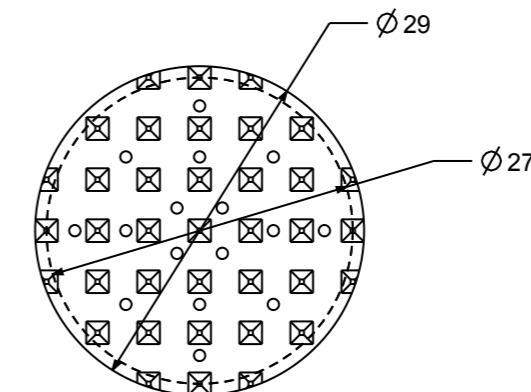


SCALE 1.500

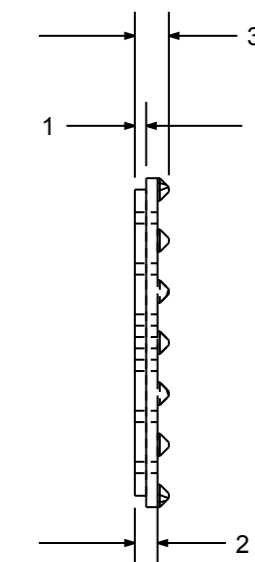


SCALE 1.500

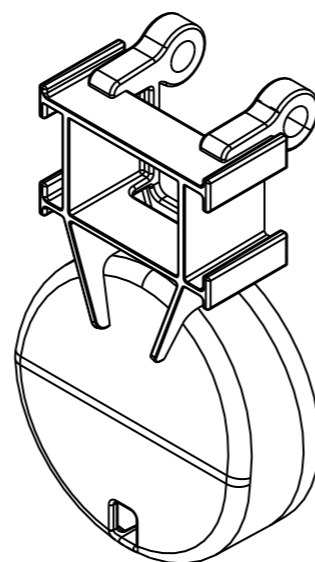
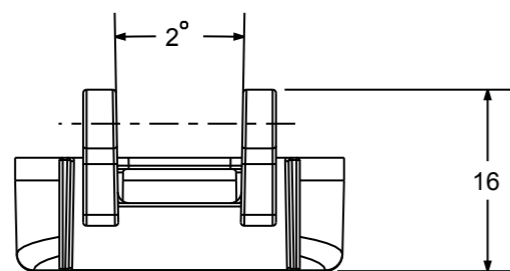
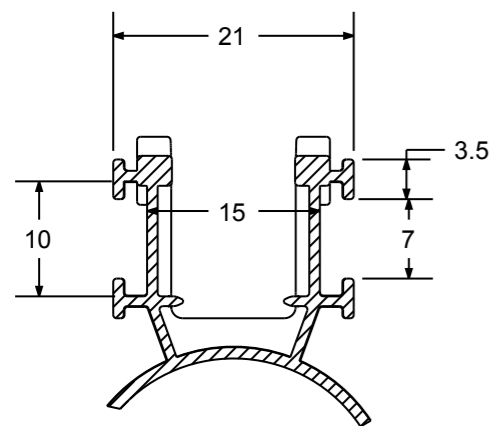
SECTION A-A



SCALE 1.500



tutto altro draft angle sarebbe 0.5 gradi
unit: mm



SECTION B-B
SCALE 1.500



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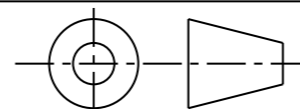
Titolo di Tesi:
Nuovo sistema di capsule per la macchina da caffe' per Nespresso

28 giugno 2010

Relatore: Matteo.Ingaramo

Correlatore: Gorno Roberta

Studente: Jian Ma - 720344



Scala 3:2

DWG NO.

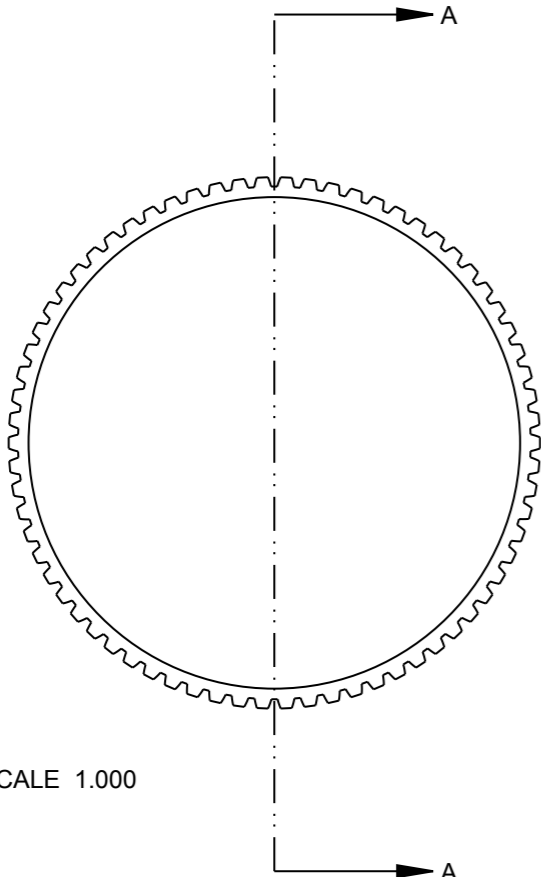
d_nes_1_11_head set

Tavola NO

11

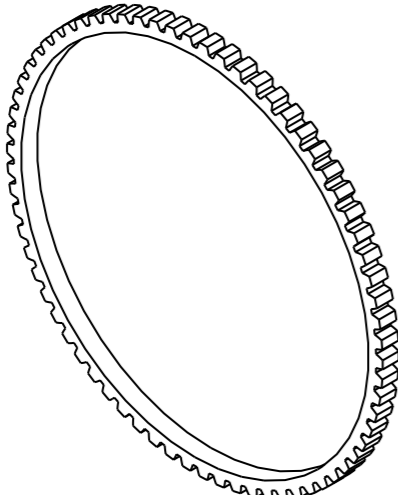
A3

gear1



SCALE 1.000

SECTION A-A

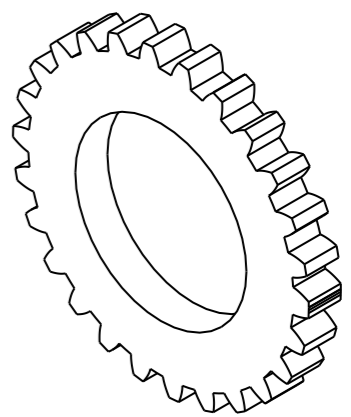


M=1
 Za=70
 alpha=20
 Db=32
 Da=72
 Df=68

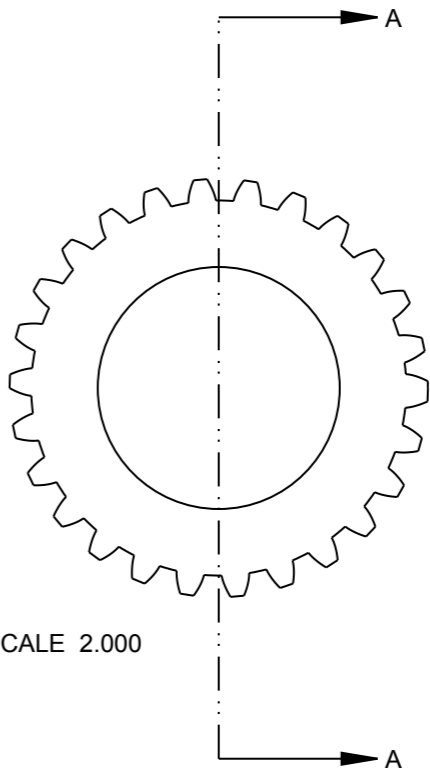
unit:mm

gear2

M=1
 Za=26
 alpha=20
 Db=12
 Da=27
 Df=25



SCALE 2.000



SCALE 2.000

SECTION A-A



unit:mm



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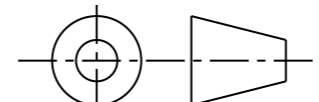
Titolo di Tesi:
 Nuovo sistema di capsule per la macchina da caffe' per Nespresso

28 giugno 2010

Relatore: Matteo.Ingaramo

Correlatore: Gorno Roberta

Studente: Jian Ma - 720344



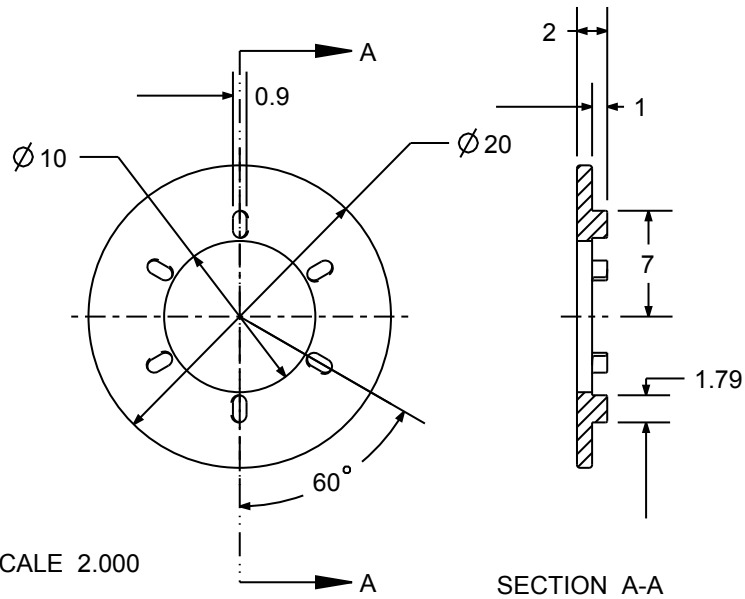
Scala

DWG NO.
 d_nes_1_12_gear set

Tavola NO
 12

A3

clutch2

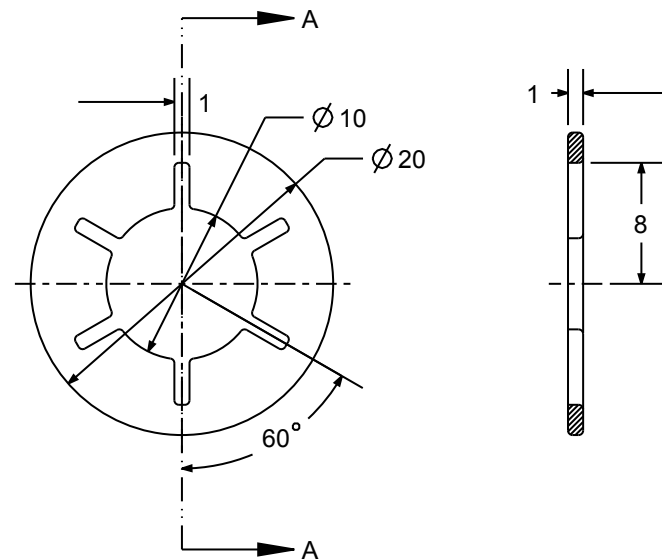


SCALE 2.000

SECTION A-A

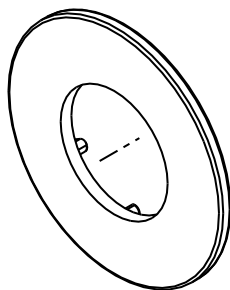
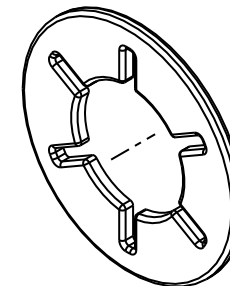
clutch1

draft angle :0.5 gradi
unit: mm



SCALE 2.000

SECTION A-A



SCALE 2.000

draft angle :0.5 gradi
unit: mm



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Tito di Tesi:

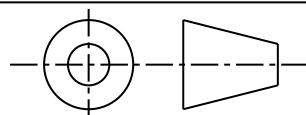
Nuovo sistema di capsule per la macchina da caffe' per Nespresso

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Scala 2:1

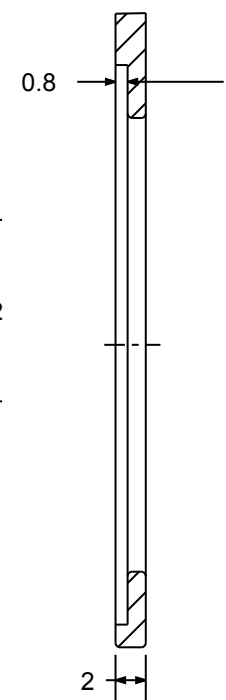
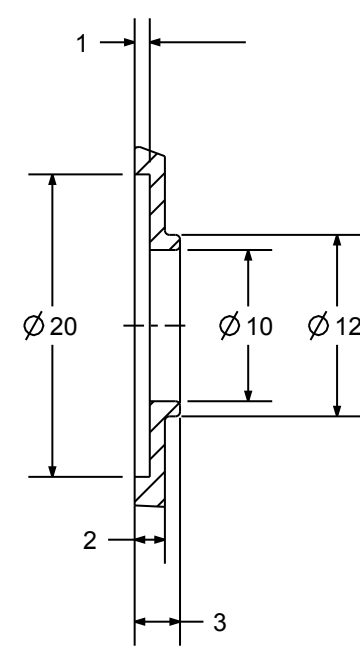
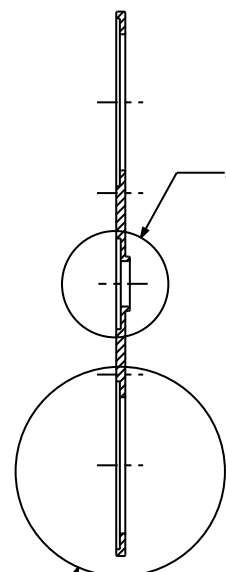
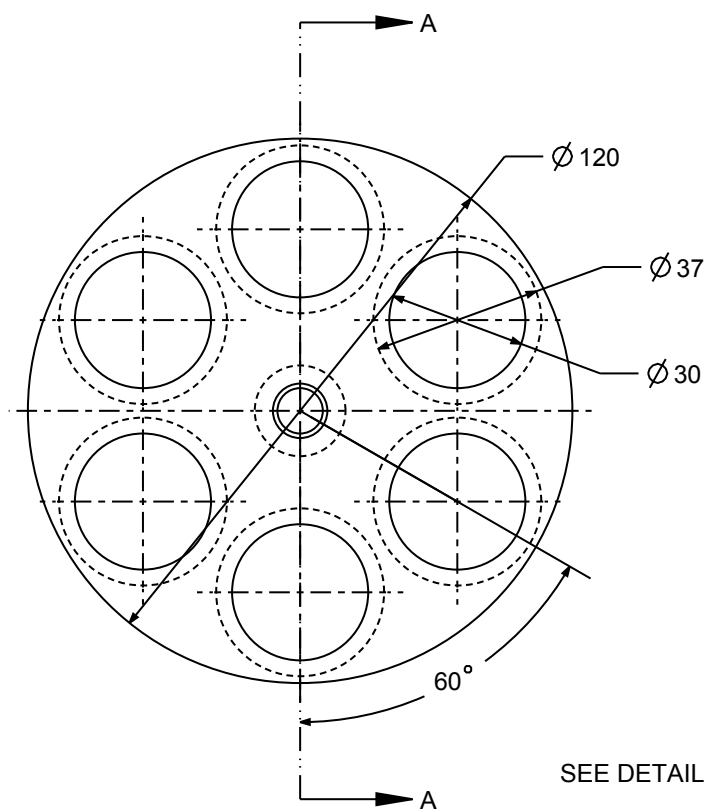
DWG NO.

d_nes_1_13_clutch set

Tavola NO

13

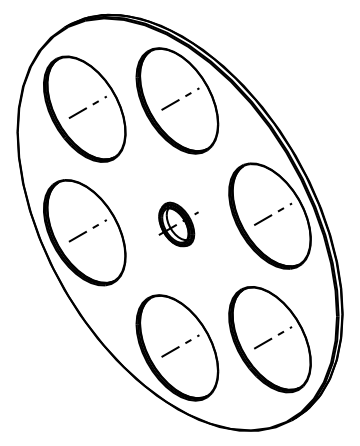
A4



SECTION A-A
 2 pcs/set
 draft angle : 0.5 gradi
 unit: mm

DETAIL A
 SCALE 2.000

DETAIL B
 SCALE 2.000

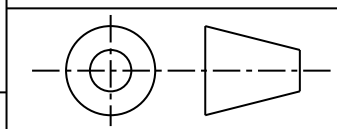


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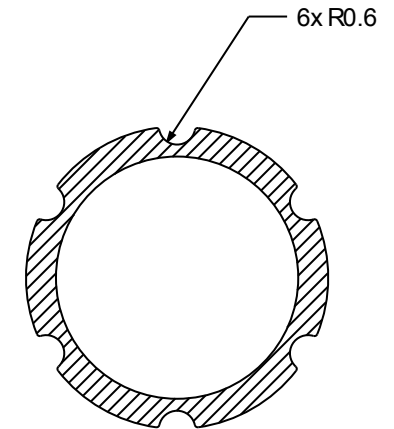
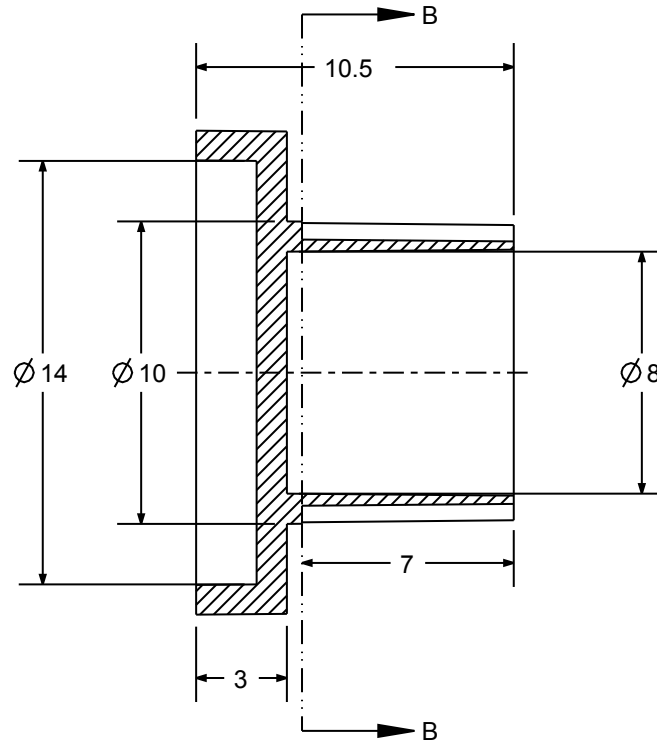
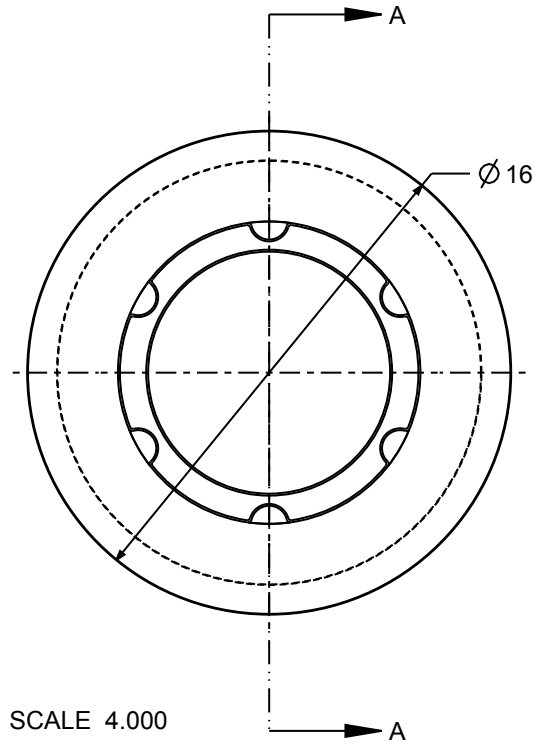


Scala 3:5

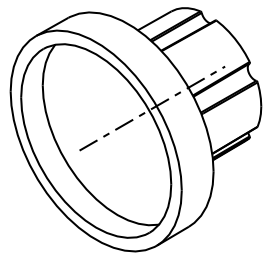
DWG NO.
 d_nes_1_14_part_wheel

Tavola NO
 14

A4



tutto altro draft angle sarebbe 0.5 gradi
unit: mm



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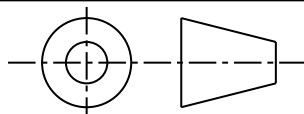
Tito di Tesi:
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28 giugno 2010

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Correlatore: Gorno Roberta

Studiante: Jian Ma - 720344



Scala 4:1

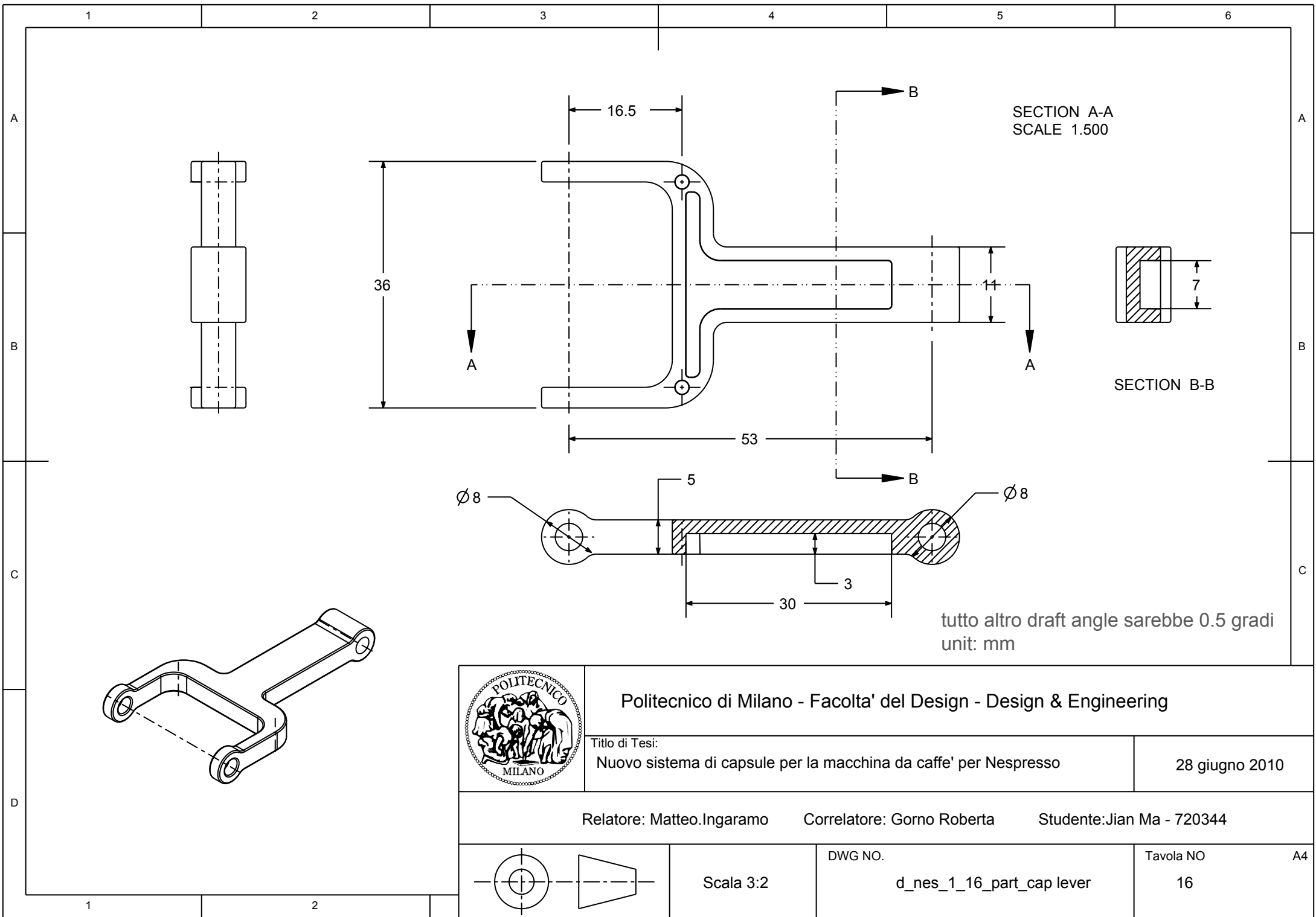
DWG NO.

d_nes_1_15_part_shaft pin

Tavola NO

15

A4



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Tito di Tesi:

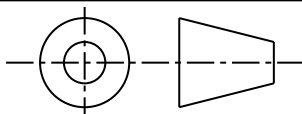
Nuovo sistema di capsule per la macchina da caffe' per Nespresso

28 giugno 2010

Relatore: Matteo.Ingaramo

Correlatore: Gorno Roberta

Studente: Jian Ma - 720344



Scala 3:2

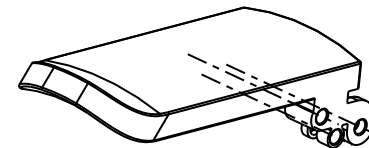
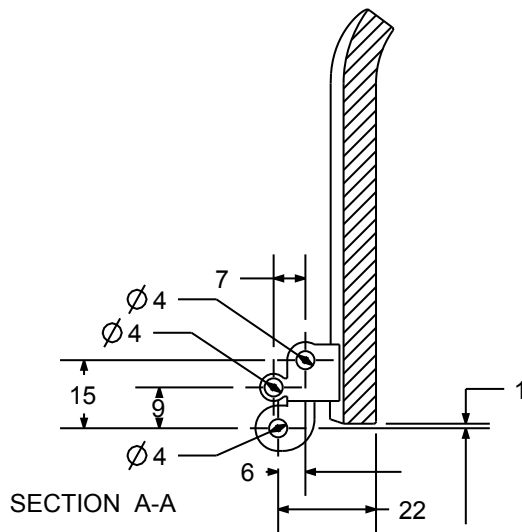
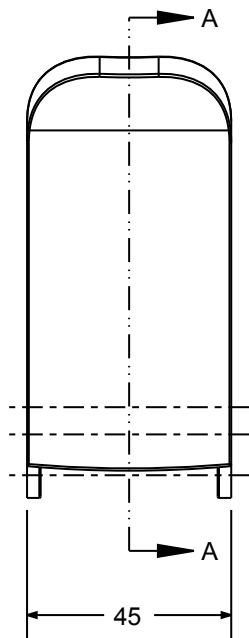
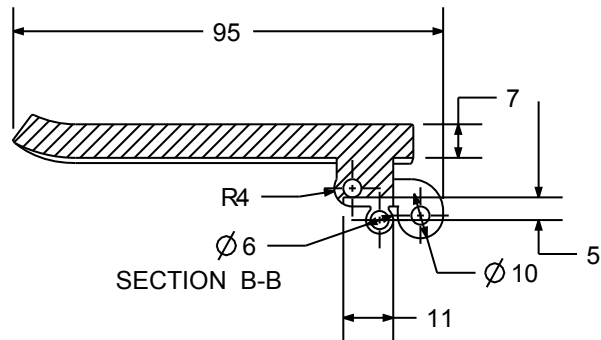
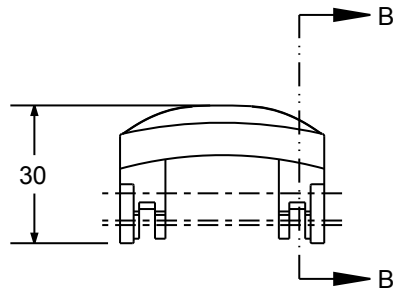
DWG NO.

d_nes_1_16_part_cap lever

Tavola NO

16

A4



tutto altro draft angle sarebbe 0.5 gradi
unit: mm



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Titolo di Tesi:

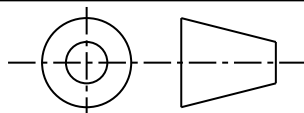
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Correlatore: Gorno Roberta

Studente: Jian Ma - 720344



Scala 3:5

DWG NO.

d_nes_1_17_part_handle

Tavola NO

17

A4