

ITEM NO.	PART NUMBER	QTY
1	Male pyramidal adapter with thread	1
2	Kneecap	1
3	Ball joint shaft	1
4	Upper shaft of the shock absorber	1
5	Magnetorheological damper	1
6	Housing shell	1
7	Lower shaft of the shock absorber	1
8	Female pyramidal adapter	1
9	Male pyramidal adapter	1
10	Upper foot	1
11	Insole	1

TITLE:
Transfemoral prosthesis

MASS:
2282.73 g

MATERIAL:



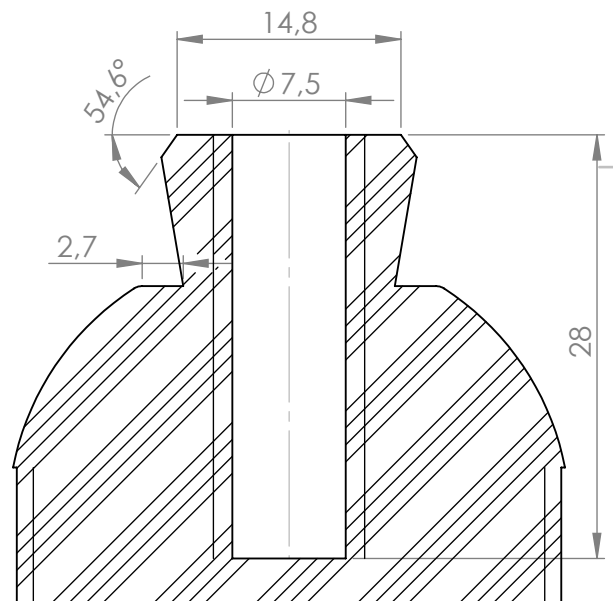
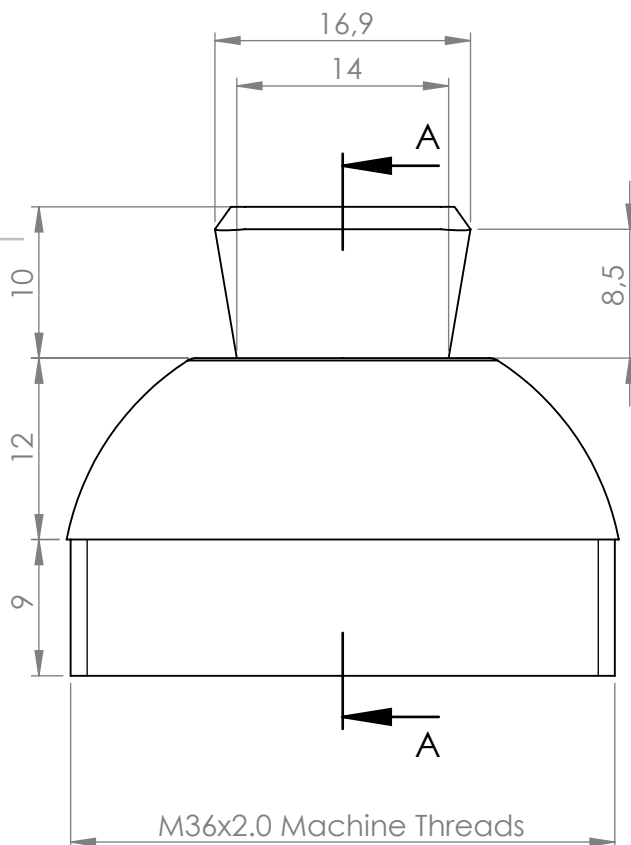
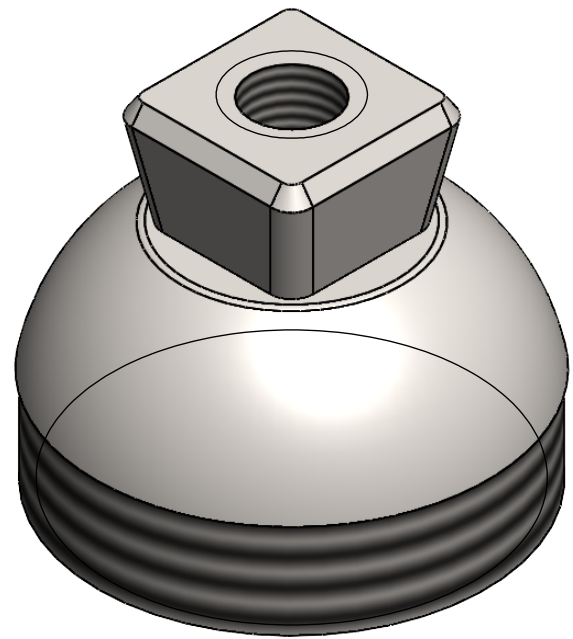
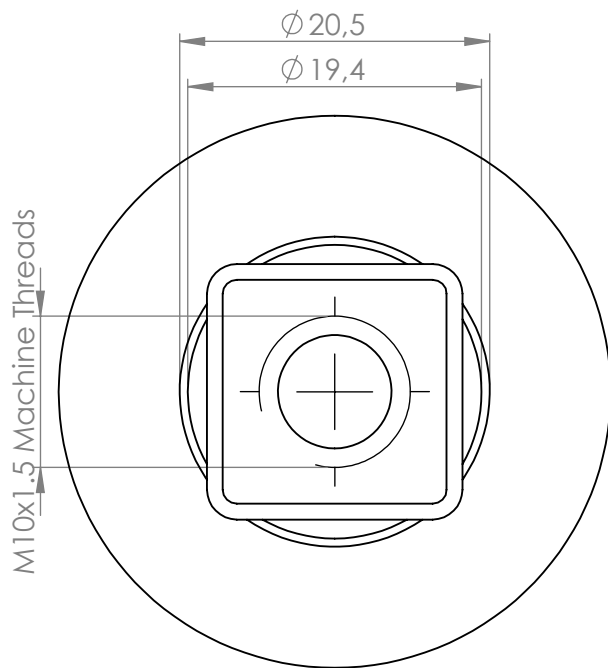
UNIVERSIDAD SANTO TOMÁS
FACULTAD DE INGENIERÍA Y CIENCIAS EXACTAS
BOGOTÁ

PROJECT:
TRANSFEMORAL MECHATRONIC PROSTHESIS
WITH MAGNETORHEOLOGICAL
COMPENSATION

DRAWN:
ZULY ALEXANDRA MORA PEREZ
SEBASTIAN MUÑOZ VASQUEZ

UNITS: mm
SCALE: 1:2
DATE: 29/09/2020
DWG. NO. 1/11
QUANTITY: 1
SHEET 1 OF 1

A4



SECTION VIEW A-A
SCALE 2 : 1

TITLE:
Male pyramidal adapter with thread

MASS:
142 g

MATERIAL:
304 Stainless steel



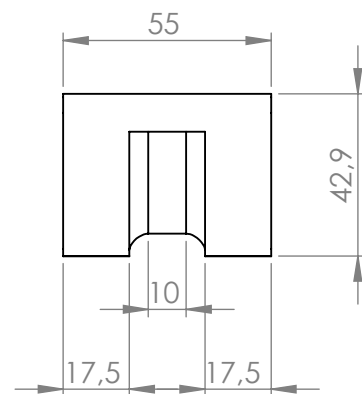
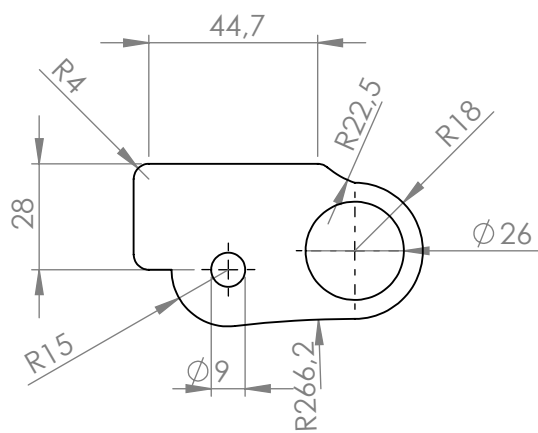
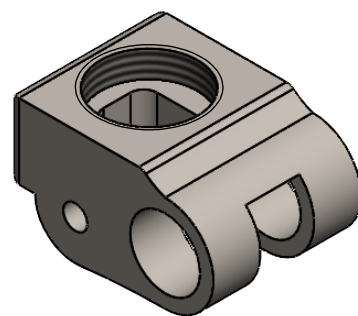
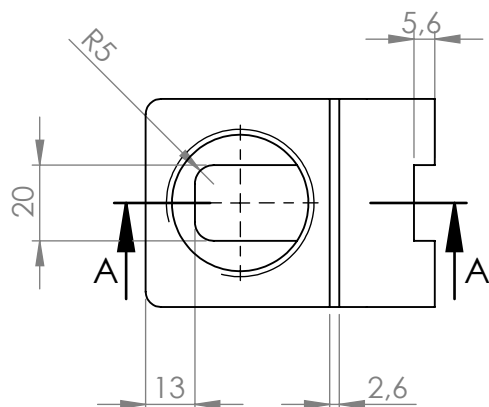
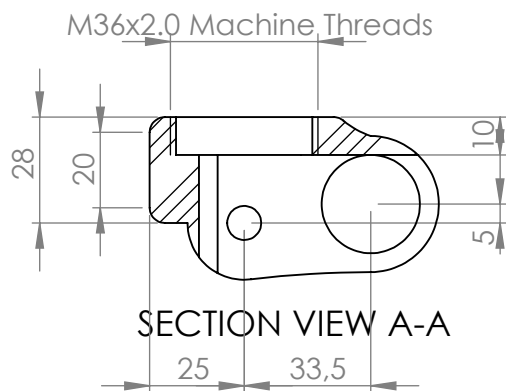
UNIVERSIDAD SANTO TOMÁS
FACULTAD DE INGENIERÍA Y CIENCIAS EXACTAS
BOGOTÁ

PROJECT:
TRANSFEMORAL MECHATRONIC PROSTHESIS
WITH MAGNETORHEOLOGICAL
COMPENSATION

DRAWN:
ZULY ALEXANDRA MORA PEREZ
SEBASTIAN MUÑOZ VASQUEZ

UNITS: mm
SCALE: 2:1
DATE: 29/09/2020
DWG. NO.: 2/11
QUANTITY: 1
SHEET 1 OF 1

A4



TITLE:

Kneecap

MASS:

660 g

MATERIAL:

304 Stainless steel



UNIVERSIDAD SANTO TOMÁS
PRIMER CENITRO UNIVERSITARIO DE COLOMBIA
BUCARA RAMA

PROJECT:

TRANSFEMORAL MECHATRONIC PROSTHESIS
WITH MAGNETORHEOLOGICAL
COMPENSATION

DRAWN:

ZULY ALEXANDRA MORA PEREZ
SEBASTIAN MUÑOZ VASQUEZ

UNITS: mm

SCALE: 1:2

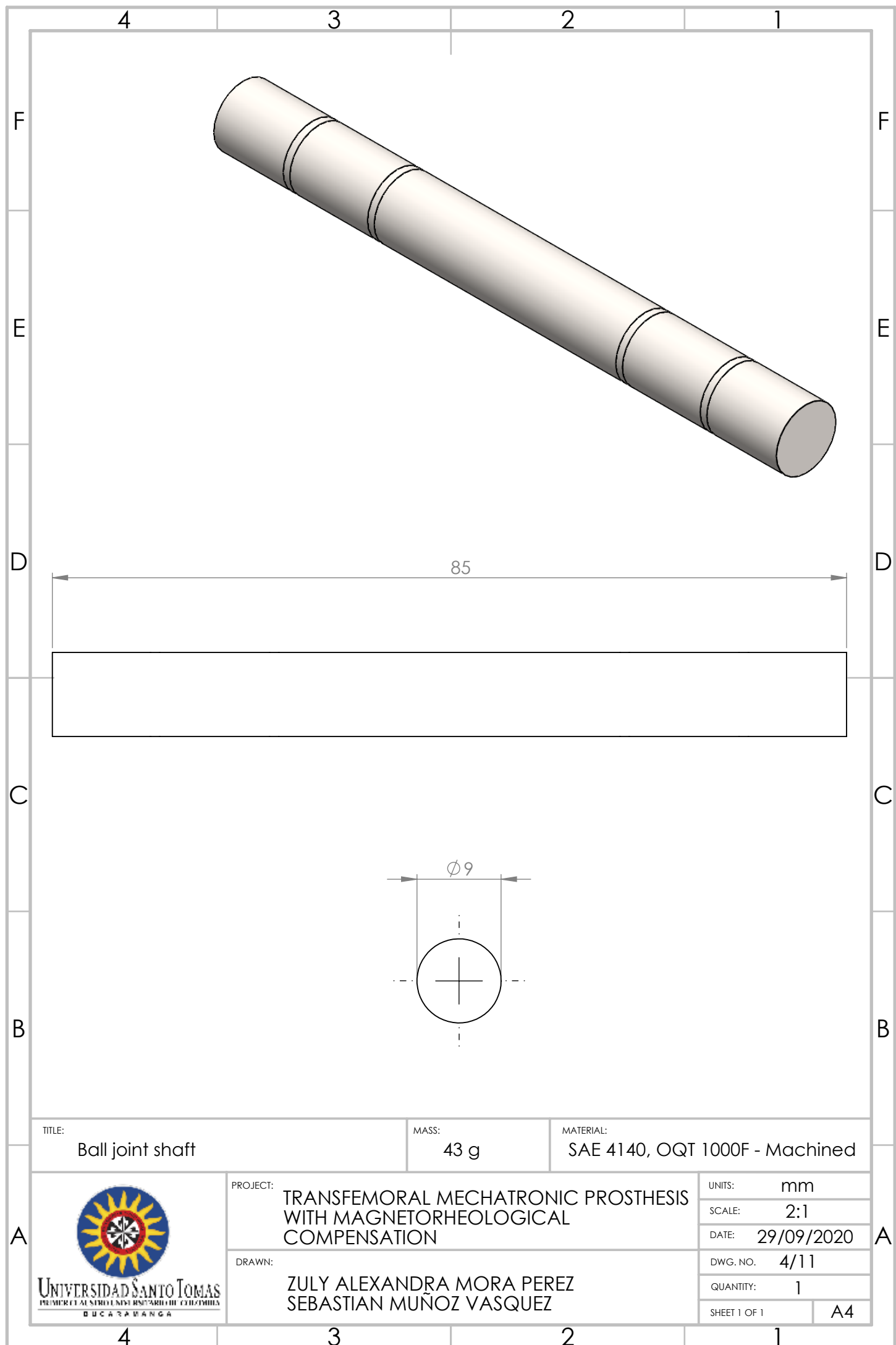
DATE: 29/09/2020

DWG. NO. 3/11


QUANTITY: 1

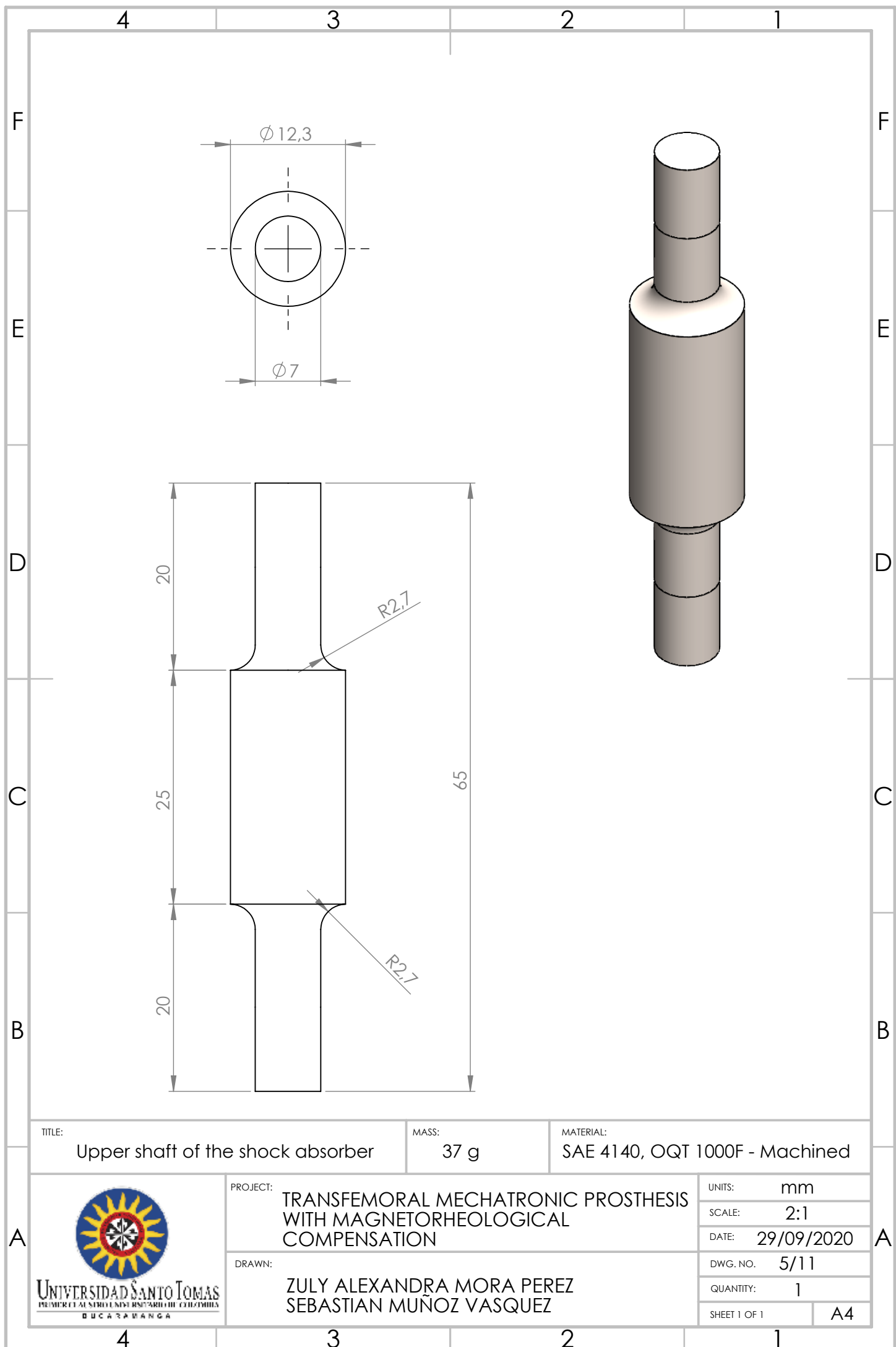
SHEET 1 OF 1

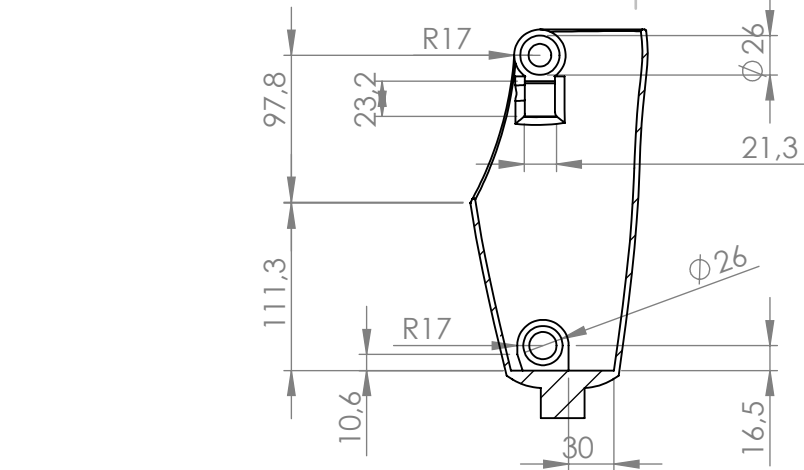
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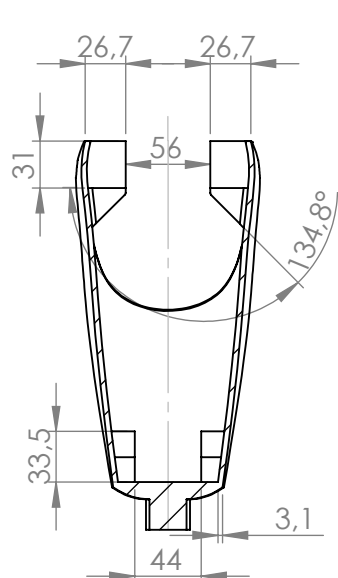
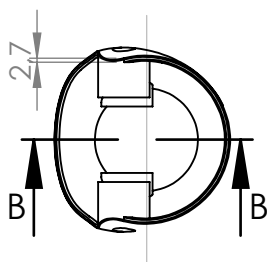
TITLE:	Ball joint shaft	MASS:	43 g	MATERIAL:	SAE 4140, OQT 1000F - Machined
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 UNIVERSIDAD SANTO TOMÁS <small>PRIMER CENAL SUR UNIVERNARIO DE COLOMBIA</small> BUCARAMANGA	PROJECT:	TRANSFEMORAL MECHATRONIC PROSTHESIS WITH MAGNETORHEOLOGICAL COMPENSATION		UNITS:	mm
	DRAWN:	ZULY ALEXANDRA MORA PEREZ SEBASTIAN MUÑOZ VASQUEZ		SCALE:	2:1
				DATE:	29/09/2020
				DWG. NO.	4/11
				QUANTITY:	1
				SHEET 1 OF 1	A4

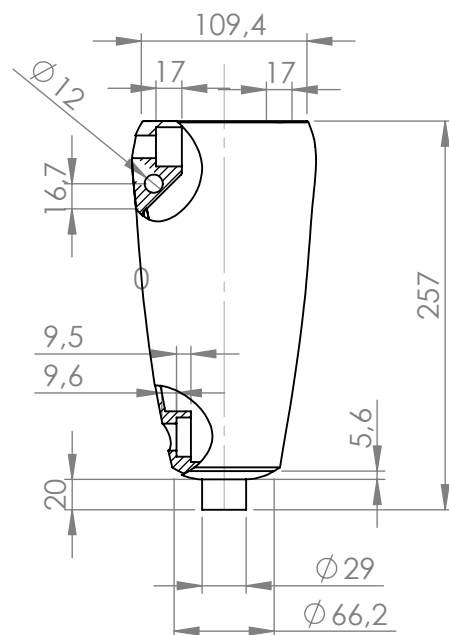
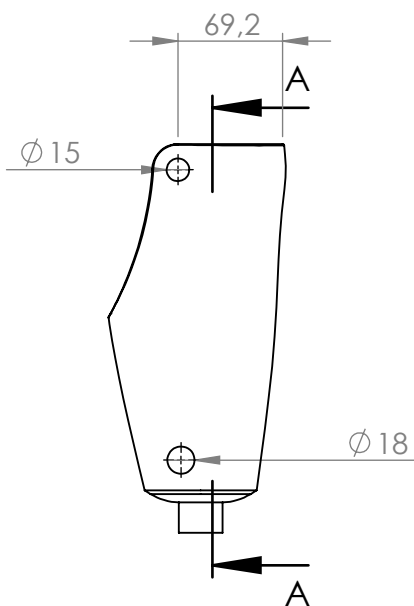




SECTION VIEW B-B



SECTION VIEW A-A



TITLE: Housing shell

MASS: 470.52 g

MATERIAL: Laminated composite. GRC.



UNIVERSIDAD SANTO TOMÁS
PRIMER CENITRO UNIVERSITARIO DE COLOMBIA
BUCARANGA

PROJECT: TRANSFEMORAL MECHATRONIC PROSTHESIS
WITH MAGNETORHEOLOGICAL
COMPENSATION

DRAWN

ZULY ALEXANDRA MORA PEREZ
SEBASTIAN MUÑOZ VASQUEZ

UNITS: mm

SCALE: 1:5

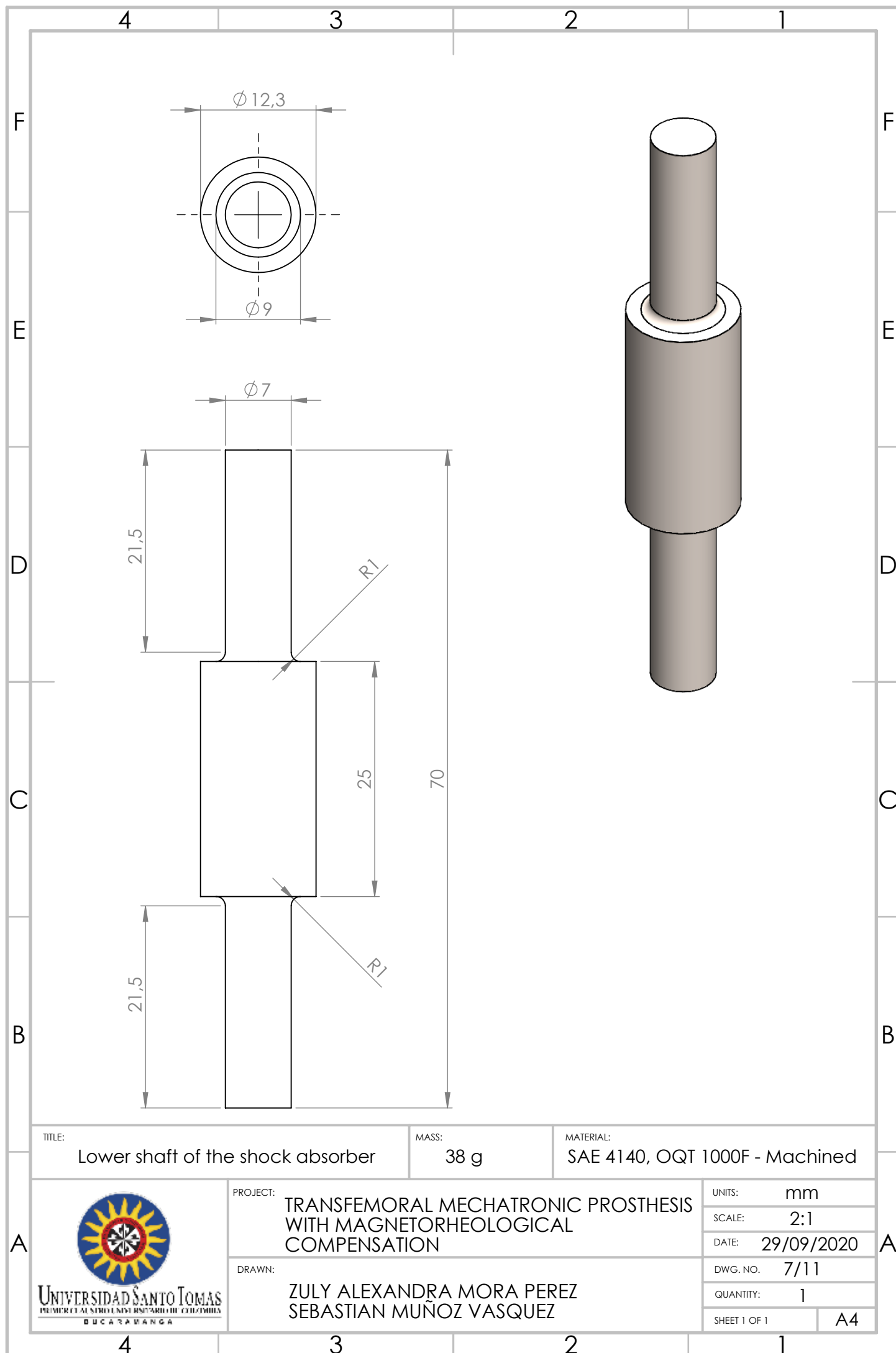
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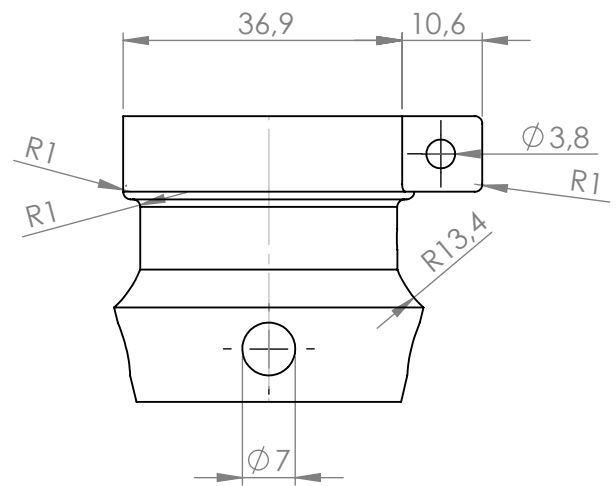
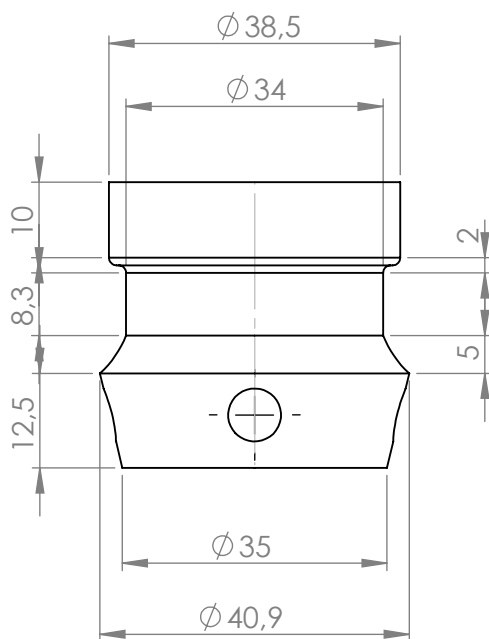
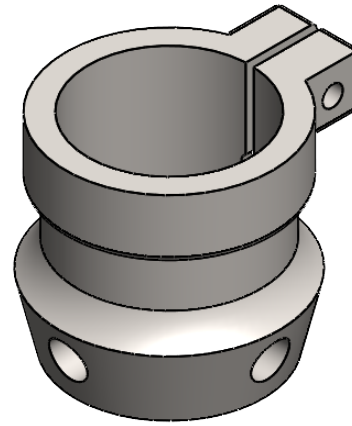
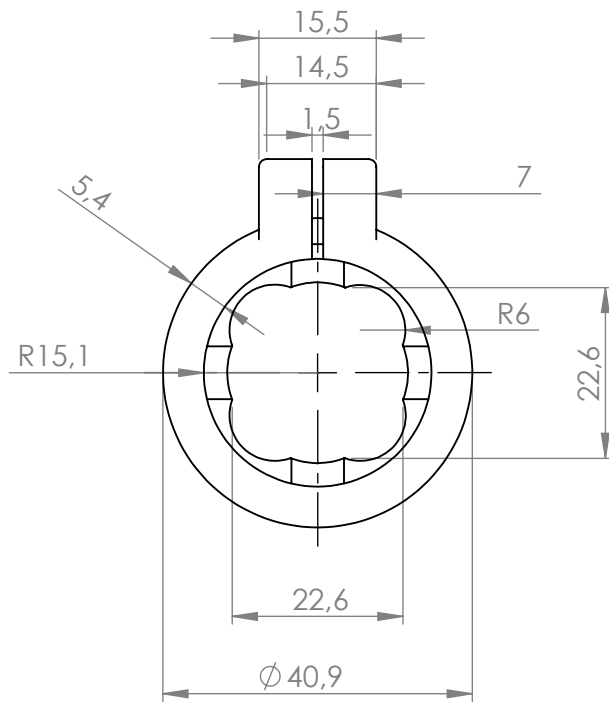
DWG. NO. 6/11

QUANTITY: 1

SHEET 1 OF 1

A4





TITLE: Female pyramidal adapter

MASS: 121 g

MATERIAL: 304 Stainless steel



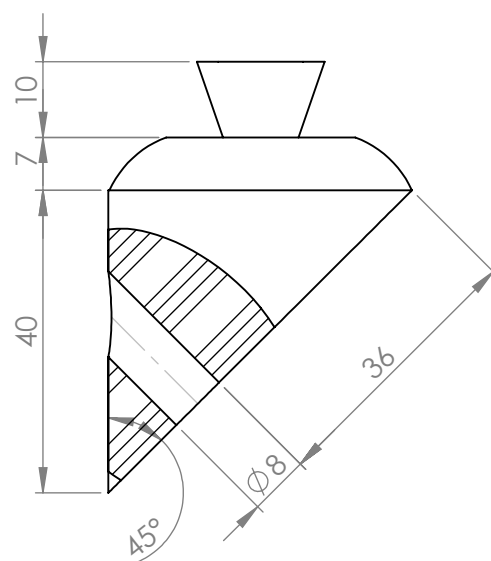
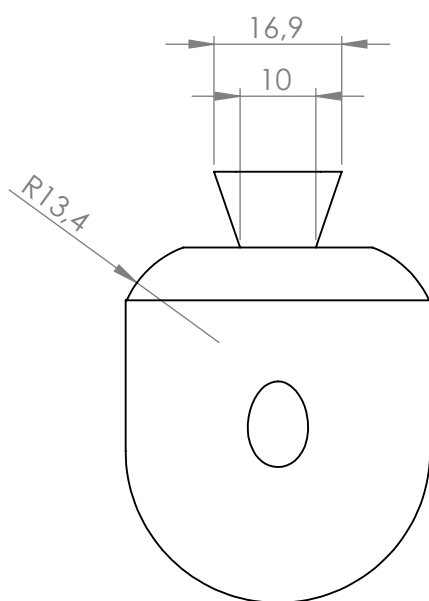
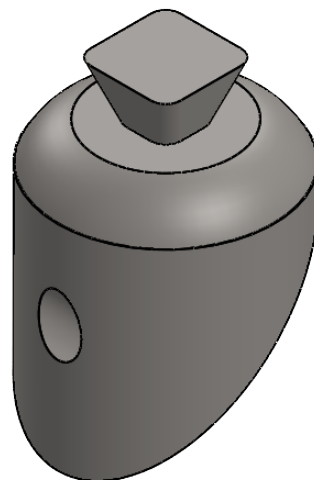
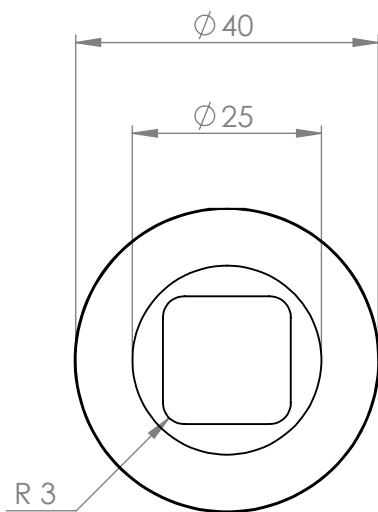
UNIVERSIDAD SANTO TOMÁS
PRIMER CENAL SURLENTINO EN EL MUNDO
BUCARANGA

PROJECT: TRANSFEMORAL MECHATRONIC PROSTHESIS
WITH MAGNETORHEOLOGICAL
COMPENSATION

DRAWN: ZULY ALEXANDRA MORA PEREZ
SEBASTIAN MUÑOZ VASQUEZ

UNITS: mm
SCALE: 1:1
DATE: 29/09/2020
DWG. NO. 8/11
QUANTITY: 1
SHEET 1 OF 1

A4



TITLE: Male pyramidal adapter

MASS: 262 g

MATERIAL: 304 Stainless steel



UNIVERSIDAD SANTO TOMÁS
PRINCIPAL STREET, BUCARAMANGA

PROJECT: TRANSFEMORAL MECHATRONIC PROSTHESIS
WITH MAGNETORHEOLOGICAL
COMPENSATION

DRAWN: ZULY ALEXANDRA MORA PEREZ
SEBASTIAN MUÑOZ VASQUEZ

UNITS: mm

SCALE: 1:1

DATE: 29/09/2020

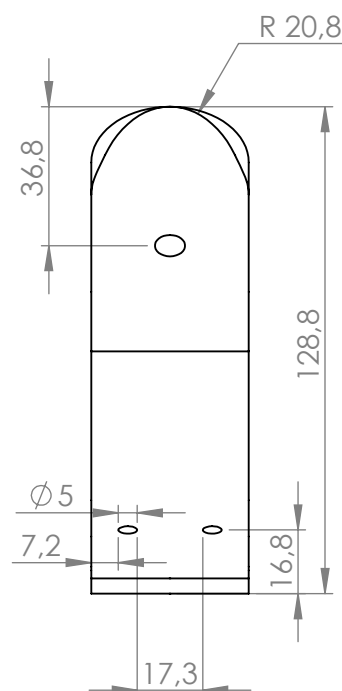
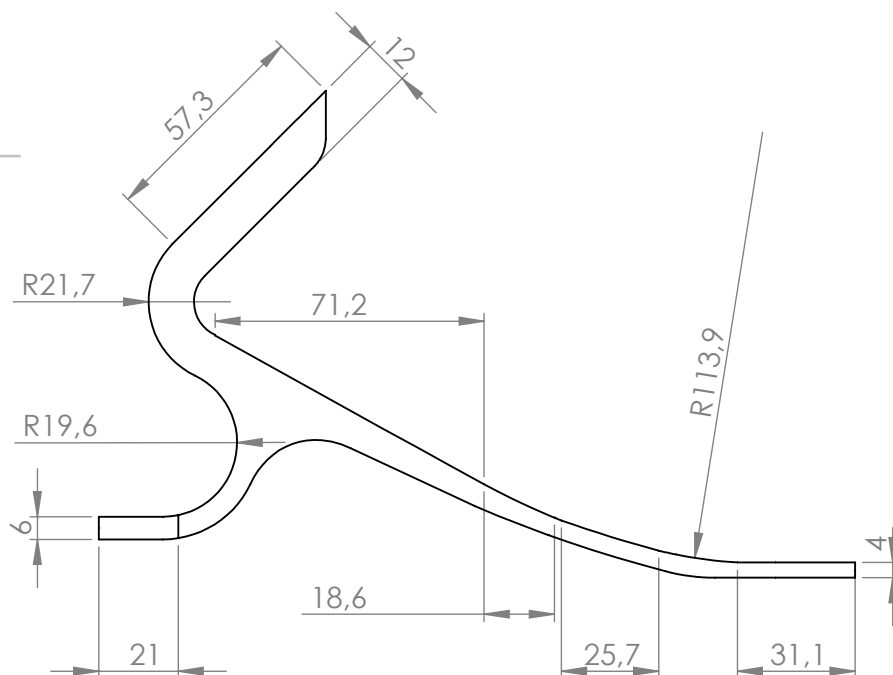
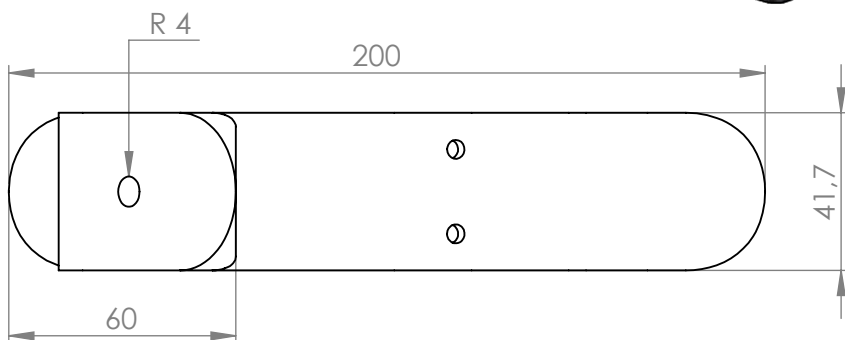
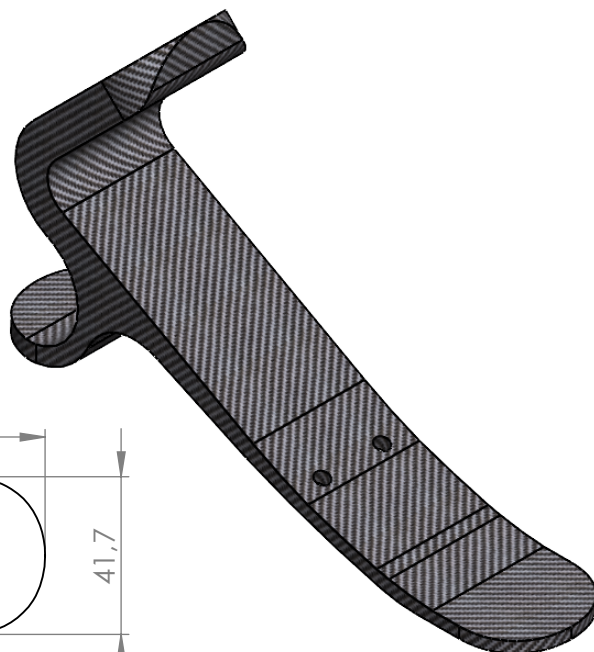
DWG. NO. 9/11

QUANTITY: 1

SHEET 1 OF 1

A4

Printing parameters:
 Printed on Markforged Two®
 Matrix: Onyx®
 Reinforcement: carbon fiber
 Infill: 100% solid
 Fiber orientation: concentric
 Fiber volume fraction: 32%



TITLE:
Upper foot

MASS:
112.29 g

MATERIAL:
Carbon fiber and onyx composite



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 BUCA RAMANGA

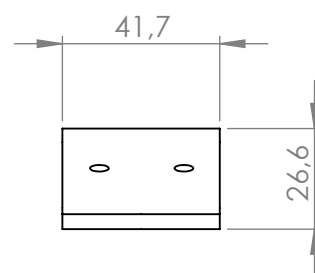
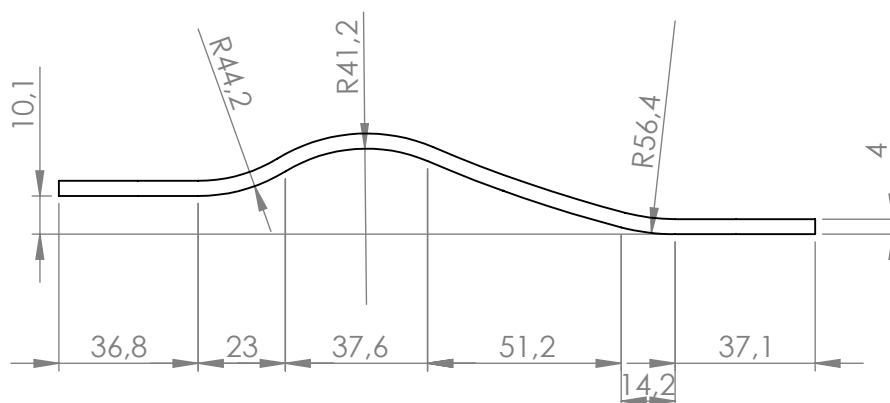
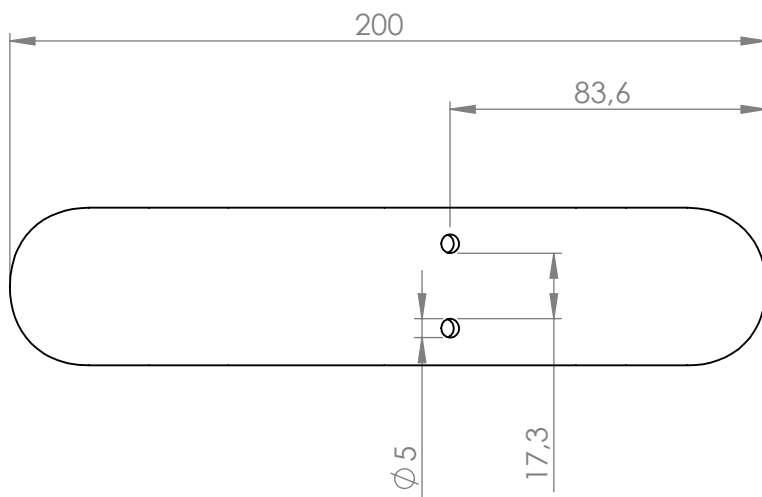
PROJECT:
TRANSFEMORAL MECHATRONIC PROSTHESIS
 WITH MAGNETORHEOLOGICAL
 COMPENSATION

DRAWN:
ZULY ALEXANDRA MORA PEREZ
 SEBASTIAN MUÑOZ VASQUEZ

UNITS: mm
 SCALE: 1:2
 DATE: 29/09/2020
 DWG. NO. 10/11
 QUANTITY: 1
 SHEET 1 OF 1

A4

Printing parameters:
 Printed on Markforged Two®
 Matrix: Onyx®
 Reinforcement: carbon fiber
 Infill: 100% solid
 Fiber orientation: concentric
 Fiber volume fraction: 32%



TITLE:

Insole

MASS:

39.40 g

MATERIAL:

Onyx



UNIVERSIDAD SANTO TOMÁS
 PRIMER CENAFI SEDE CENTRO ESTUDIOS DE COLOMBIA
 BUCA RAMANGA

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 WITH MAGNETORHEOLOGICAL
 COMPENSATION

DRAWN:

ZULY ALEXANDRA MORA PEREZ
 SEBASTIAN MUÑOZ VASQUEZ

UNITS: mm

SCALE: 1:2

DATE: 29/09/2020

DWG. NO. 11/11

QUANTITY: 1

SHEET 1 OF 1

A4