

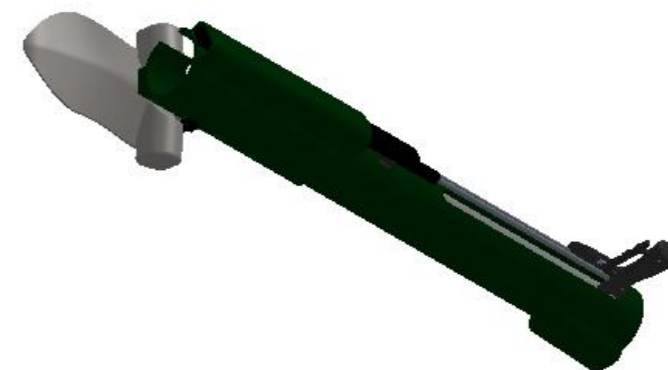
Unless otherwise specified dimensions are in millimetres. Tolerances are: XXX (0 PLS) ±0.5 MM XX.X (1 PLS) ±0.1 MM X.XX (2 PLS) ±0.03 MM .XXX (3 PLS) ±0.007 MM UNLESS OTHERWISE NOTED ANGLE TOLERANCE ±0°30', UNLESS NOTED Sheet Name: Sheet1	Name	Date	University of Limerick <small>UNIVERSITY of LIMERICK OLLSCOIL LUIMNIGH</small>	Title: Assy Standard Exp		
	Drawn Donal Lenihan	02/05/2012			SIZE A3	
	Checked		DO NOT SCALE DRAWING	DWG. NO.:	Material:	Weight: g
	THIRD ANGLE PROJECTION 			REV.	Scale: 1:20	Sheet 1 of 13

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.	Manufacturing Process.
1	Catch Mechanism Sapling R	Catches sapling rubber right.	Aluminium	1	Aluminium Extrusion
2	Push Plate Catch Mechanism	Allows Catch Mechanism to swing open and close.	Aluminium	1	Aluminium Extrusion
3	Catch Mechanism Sapling L	Swings open to allow for insertion of sapling.	Aluminium	1	Aluminium Extrusion
4	Inside Core Sapling Planter	Inside body core of Chestnut Planter	Stainless Steel	1	Extrusion
5	Sapling Hold Rubber L	Catches sapling over root ball.	Rubber	1	Injection Molding
6	Sapling Hold Rubber R	Catches sapling over root ball.	Rubber	1	Injection Molding
7	Main Core Planting Mechanism	Main Frame of the Chestnut Planter.	Stainless Steel	1	Annealing
8	Main Body Gas Spring	Gas Spring frame for Main Push Bar.	Stainless Steel	1	-
9	Main Push Bar Gas Spring	Allows movement up and down of Sapling root and Handle.	Stainless Steel	1	-
10	Main adjacent catch bar	Mechanism that locks the Gas Spring in Place.	Stainless Steel	1	-
11	bolt	Bolt that goes through the Catch Mechanism.	Steel	2	Cold Rolled
12	Nut	Nut that locks Bolt in Place.	Steel	2	Cold Rolled
13	Second adjacent catch bar	Mechanism that locks the Gas Spring in Place.	Stainless Steel	1	-
14	Press open Handle	Opens Catch Mechanism.	Rubber	1	Injection Molding
15	handle frame Right	Handle Chestnut Planter.	Rubber	1	Injection Molding
16	handle frame Left	Handle Chestnut Planter.	Rubber	1	Injection Molding
17	Top Handle	Handle Chestnut Planter.	Stainless Steel	1	Extrusion
18	Solid Shaft	Holds Connector Cable.	Stainless Steel	1	Extrusion
19	Connector Cable	Opens Catch Mechanism.	Wire Rod	1	CNC Wire Coiling
20	shovel planter Mechanism	Digs hole in soil.	Sheet Steel	1	Sheet Forming
21	Shovel moving Mechanism	Adjust height of Shovel	Stainless Steel	1	Extrusion
22	Holding Bracket	Bracket in Moving Mechanism.	Carbon Steel	1	Extrusion
23	Leg support Shovel	Suport for Shovel.	Steel	1	Hot Forging
24	Leg support Shovel2	Suport for Shovel.	Steel	1	Hot Forging
25	Catch Cable wire	Link cable wire to handle.	Wire Rod	1	CNC Wire Coiling
26	Catch cable wire handle	Link cable wire to handle.	Carbon Steel	1	Extrusion
27	Spring 1	Closes catch mechanism.	Stainless Steel	1	CNC Wire Coiling
28	Protective cover Catch mover	Ensures Catch cable Wire does not get Damaged.	Stainless Steel	1	Extrusion
29	bolt handle	Combines handle.	Steel	3	Cold Rolled
30	spring handle	Pushes press handle out.	Stainless Steel	2	CNC Wire Coiling
31	Protective plate	Protects parts of Planter.	Stainless Steel	1	Extrusion
32	Lock Shovel Mechanism-1	Closes into Moving Mechanism.	Carbon Steel	1	Extrusion
33	Lock Shovel Mechanism-2	Closes into Moving Mechanism.	Carbon Steel	1	Extrusion
34	Lock Shovel Mechanism-3	Locks 32, 33 in Place.	Carbon Steel	1	Extrusion
35	Lock Shovel Mechanism-4	Bolts into Bracket.	Carbon Steel	1	Extrusion
36	Lock Shovel Mechanism-5	Holds Shovel in Place.	Carbon Steel	1	Extrusion

Unless otherwise specified dimensions are in millimetres.
Tolerances are:
XXX (0 PLS) ±0.5 MM
XX.X (1 PLS) ±0.1 MM
X.XX (2 PLS) ±0.03 MM
.XXX (3 PLS) ±0.007 MM
UNLESS OTHERWISE NOTED
ANGLE TOLERANCE ±0°30', UNLESS NOTED
Sheet Name:
Sheet2

Name	Date	University of Limerick	
Drawn Donal Lenihan	02/05/2012	SIZE A3	Title:
Checked		DO NOT SCALE DRAWING	
THIRD ANGLE PROJECTION		DWG. NO.	Material:
		REV.	Weight: g
		Scale: 1:20	

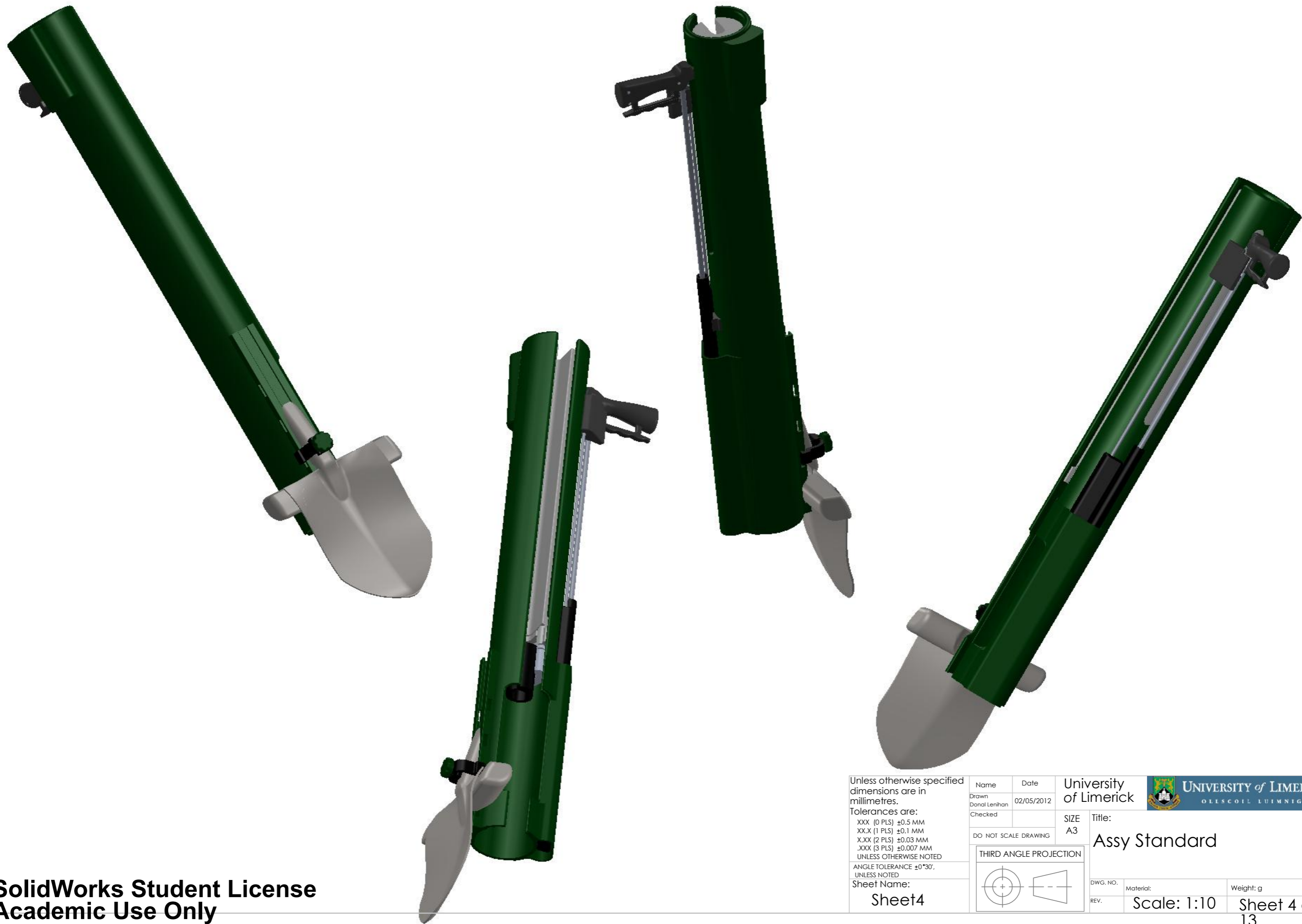




**SolidWorks Student License
Academic Use Only**

Unless otherwise specified
dimensions are in
millimetres.
Tolerances are:
XXX (0 PLS) ±0.5 MM
XX.X (1 PLS) ±0.1 MM
X.XX (2 PLS) ±0.03 MM
.XXX (3 PLS) ±0.007 MM
UNLESS OTHERWISE NOTED
ANGLE TOLERANCE ±0°30',
UNLESS NOTED
Sheet Name:
Sheet3

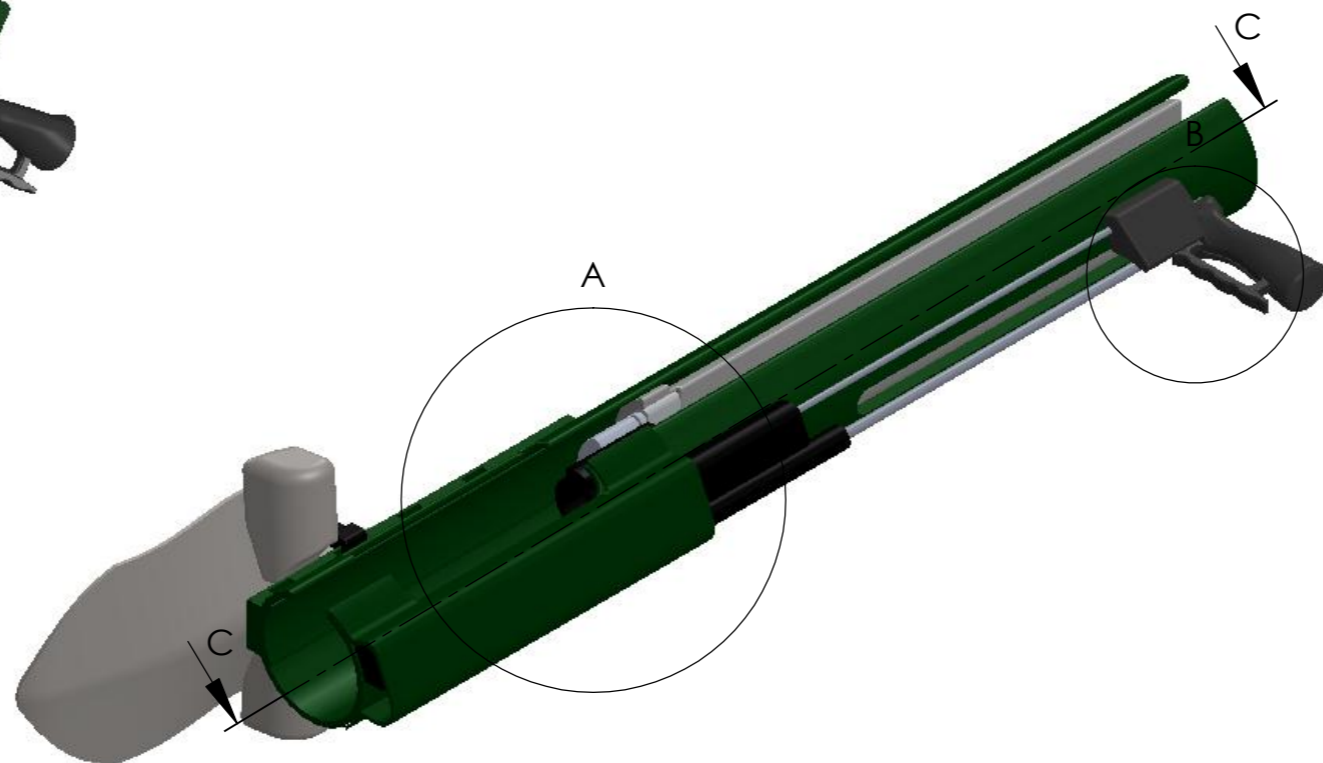
Name	Date	University of Limerick	
Drawn Donal Lenihan	02/05/2012	UNIVERSITY of LIMERICK OLLSCOIL LUIMNIGH	
Checked		SIZE A3	Title: Assy Standard
DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION	
		DWG. NO.	Material:
		REV.	Weight: g
		Scale: 1:10	
		Sheet 3 of 13	



Unless otherwise specified dimensions are in millimetres. Tolerances are: .XXX (0 PLS) ±0.5 MM XX.X (1 PLS) ±0.1 MM X.XX (2 PLS) ±0.03 MM .XXX (3 PLS) ±0.007 MM UNLESS OTHERWISE NOTED ANGLE TOLERANCE ±0°30', UNLESS NOTED Sheet Name: Sheet4	Name	Date	University of Limerick  UNIVERSITY of LIMERICK OLLSCOIL LUIMNIGH	Title: Assy Standard
	Drawn Donal Lenihan	02/05/2012		
	Checked		DO NOT SCALE DRAWING	DWG. NO.: Material: Weight: g
		REV.	Scale: 1:10	Sheet 4 of 13



SECTION C-C
SCALE 1 : 5



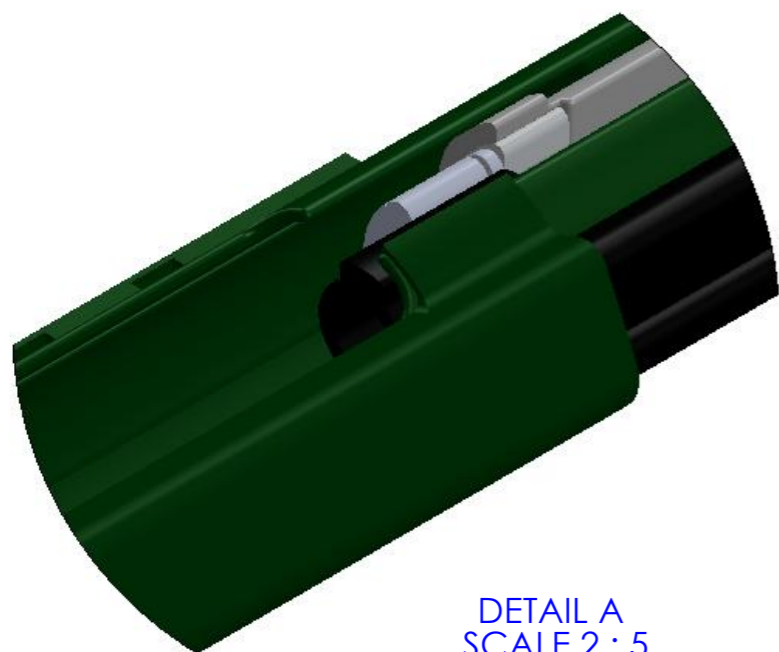
A

C

B



DETAIL B
SCALE 2 : 5



DETAIL A
SCALE 2 : 5



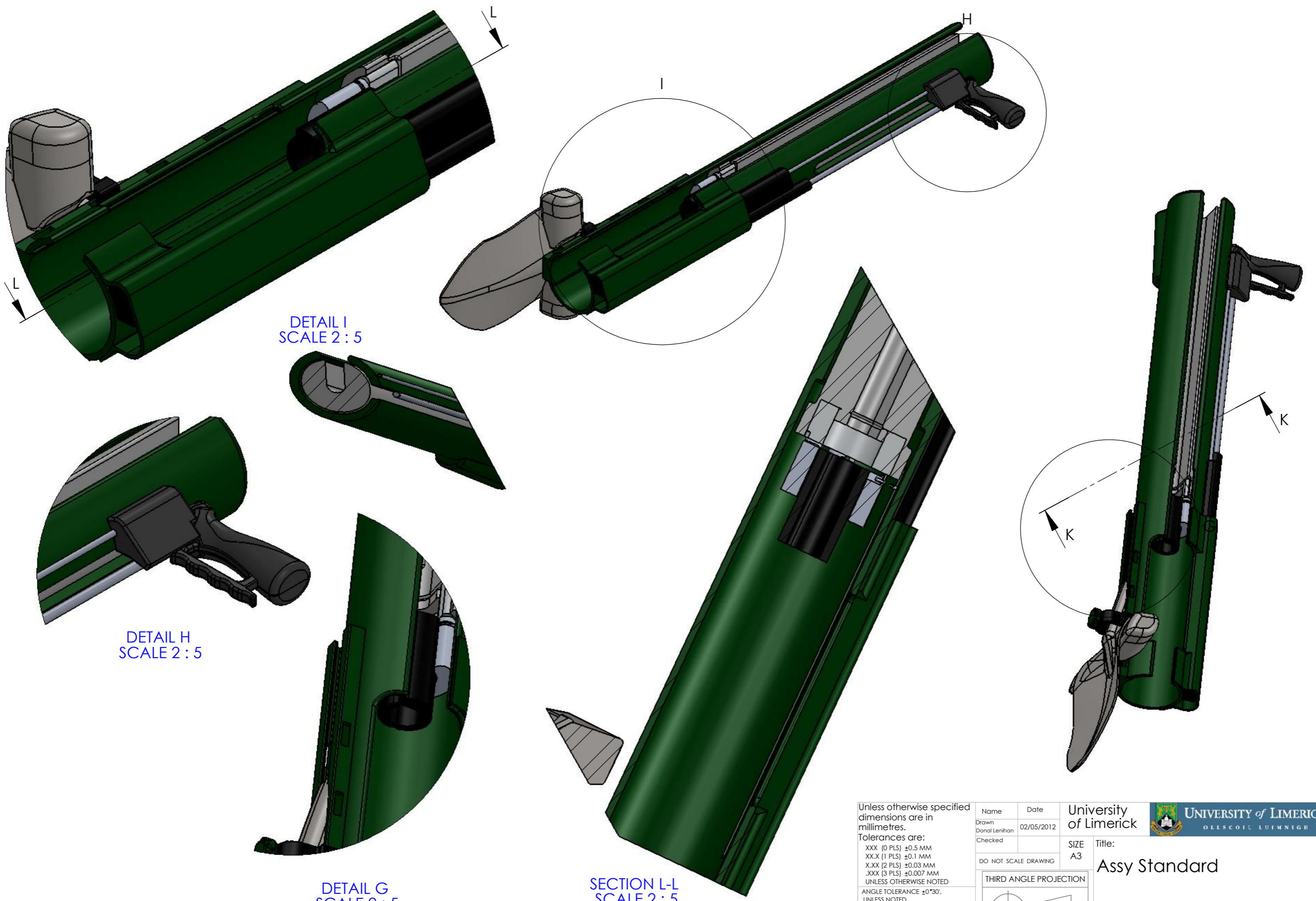
DETAIL E
SCALE 2 : 5



E

Unless otherwise specified
dimensions are in
millimetres.
Tolerances are:
XXX (0 PLS) ±0.5 MM
XX.X (1 PLS) ±0.1 MM
X.XX (2 PLS) ±0.03 MM
.XXX (3 PLS) ±0.007 MM
UNLESS OTHERWISE NOTED
ANGLE TOLERANCE ±0°30',
UNLESS NOTED
Sheet Name:
Sheet5

Name	Date	University of Limerick	
Drawn Donal Lenihan	02/05/2012	UNIVERSITY of LIMERICK OLLSCOIL LUIMNIGH	
Checked		SIZE A3	Title: Assy Standard
DO NOT SCALE DRAWING			
THIRD ANGLE PROJECTION			
DWG. NO.	Material:	Weight: g	
REV.	Scale: 1:10	Sheet 5 of 13	



DETAIL I
SCALE 2 : 5

DETAIL H
SCALE 2 : 5

DETAIL G
SCALE 2 : 5

SECTION L-L
SCALE 2 : 5

SolidWorks Student License
Academic Use Only

Unless otherwise specified
dimensions are in
millimetres.

Tolerances are:

XXX (0 PLS) ±0.5 MM
XX.X (1 PLS) ±0.1 MM
X.XX (2 PLS) ±0.03 MM
.XXX (3 PLS) ±0.007 MM
UNLESS OTHERWISE NOTED

ANGLE TOLERANCE ±0°30',
UNLESS NOTED

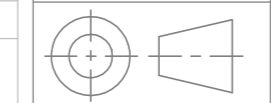
Sheet Name:

Sheet6

Name	Date
Drawn Donal Lenihan	02/05/2012
Checked	

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION



University
of Limerick



Title:

Assy Standard

DWG. NO.

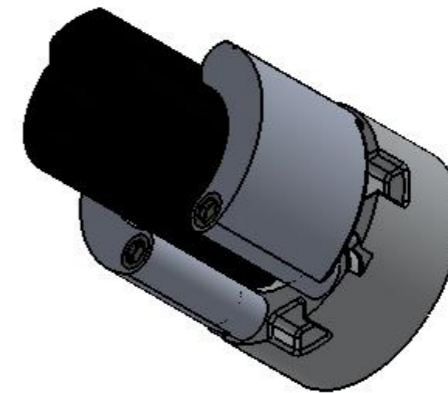
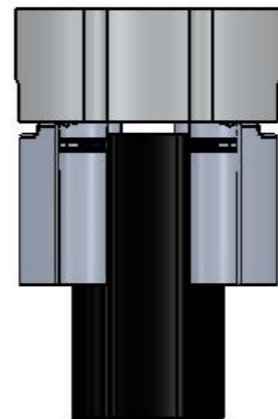
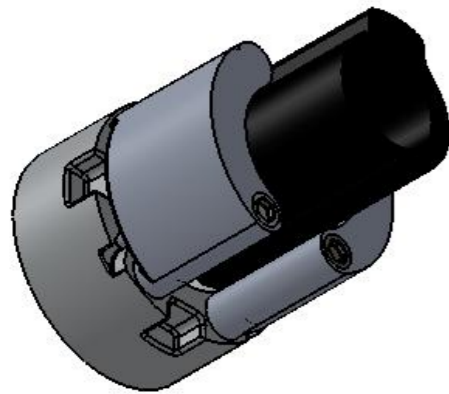
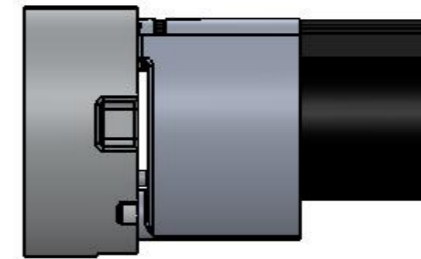
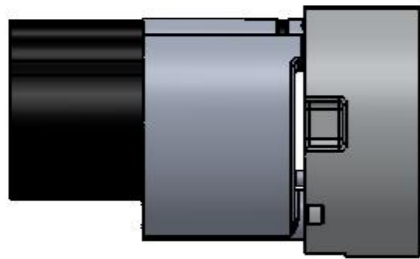
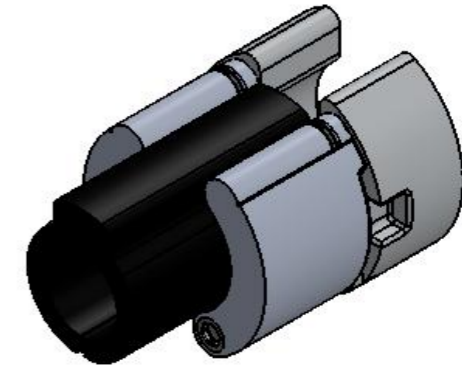
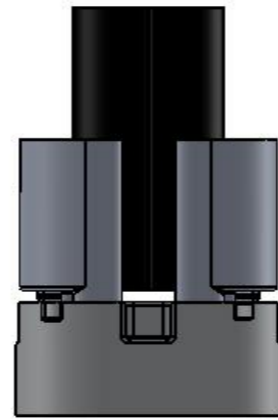
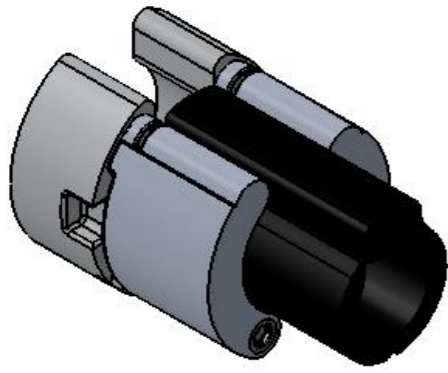
Material:

Weight: g

REV.

Scale: 1:10

Sheet 6 of 13



Unless otherwise specified
dimensions are in
millimetres.

Tolerances are:

- XXX (0 PLS) ±0.5 MM
- XX.X (1 PLS) ±0.1 MM
- X.XX (2 PLS) ±0.03 MM
- .XXX (3 PLS) ±0.007 MM
- UNLESS OTHERWISE NOTED

ANGLE TOLERANCE ±0°30',
UNLESS NOTED

Sheet Name:

Sheet7

Name	Date
Drawn Donal Lenihan	02/05/2012
Checked	

University
of Limerick



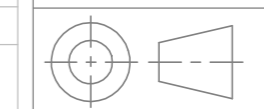
UNIVERSITY of LIMERICK
OILScoil LUIMNIGH

SIZE
A3

Title:

Assy Standard 2 Parts

THIRD ANGLE PROJECTION



DWG. NO.

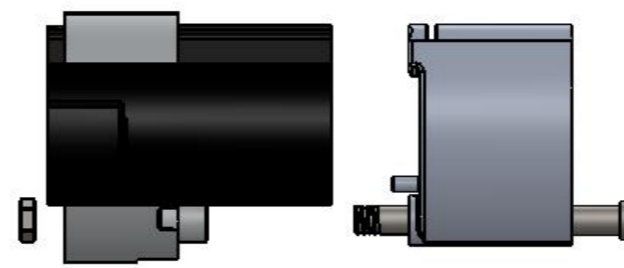
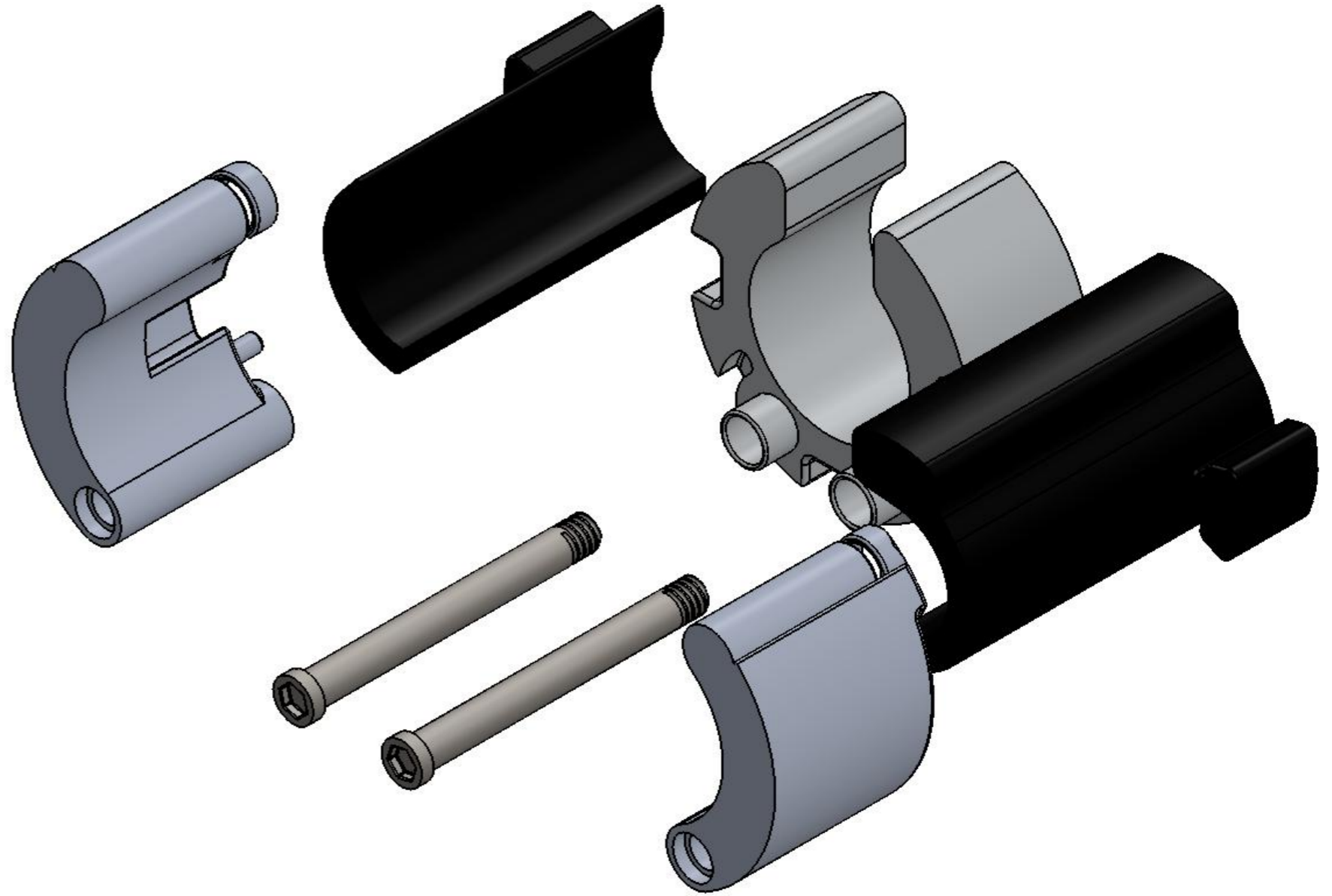
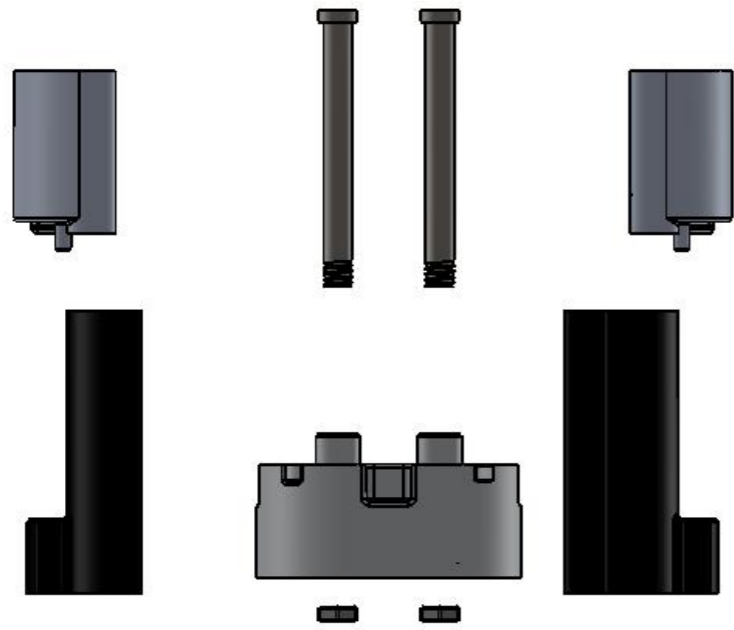
Material:

Weight: g

REV.

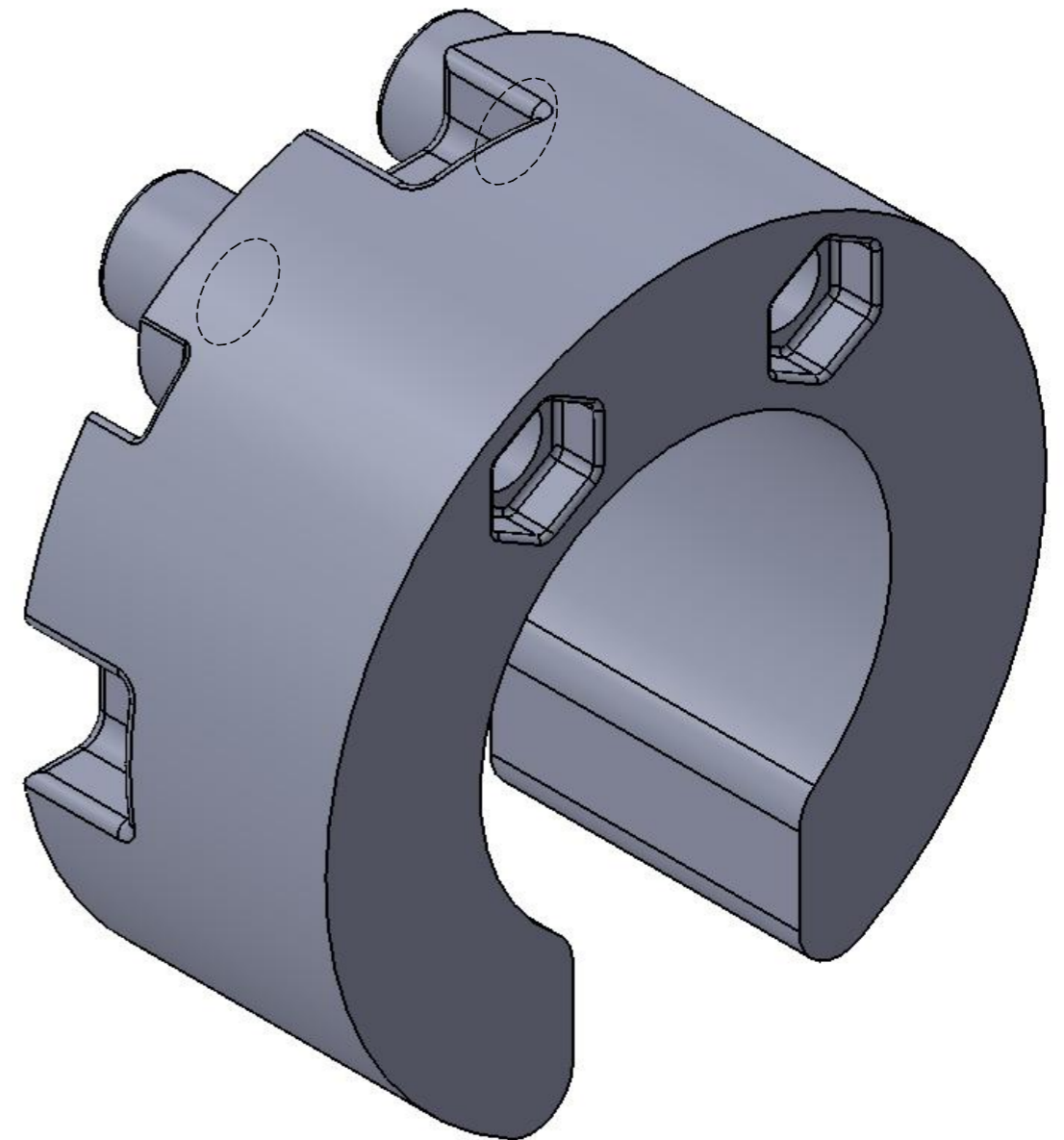
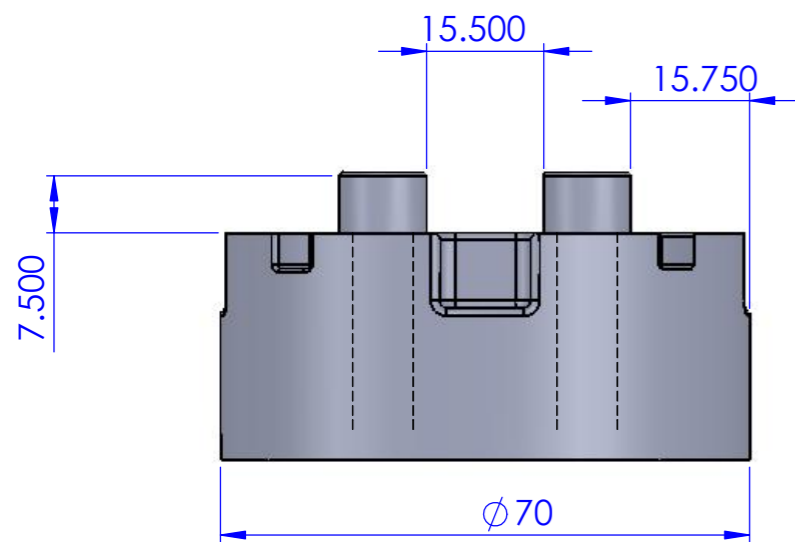
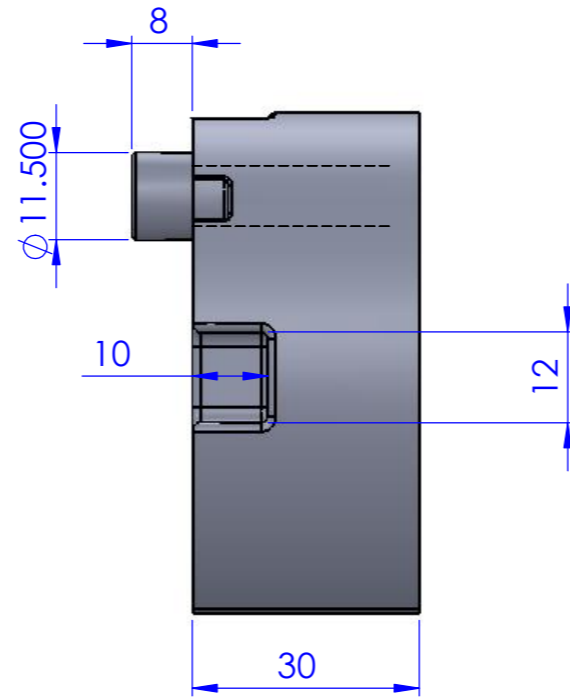
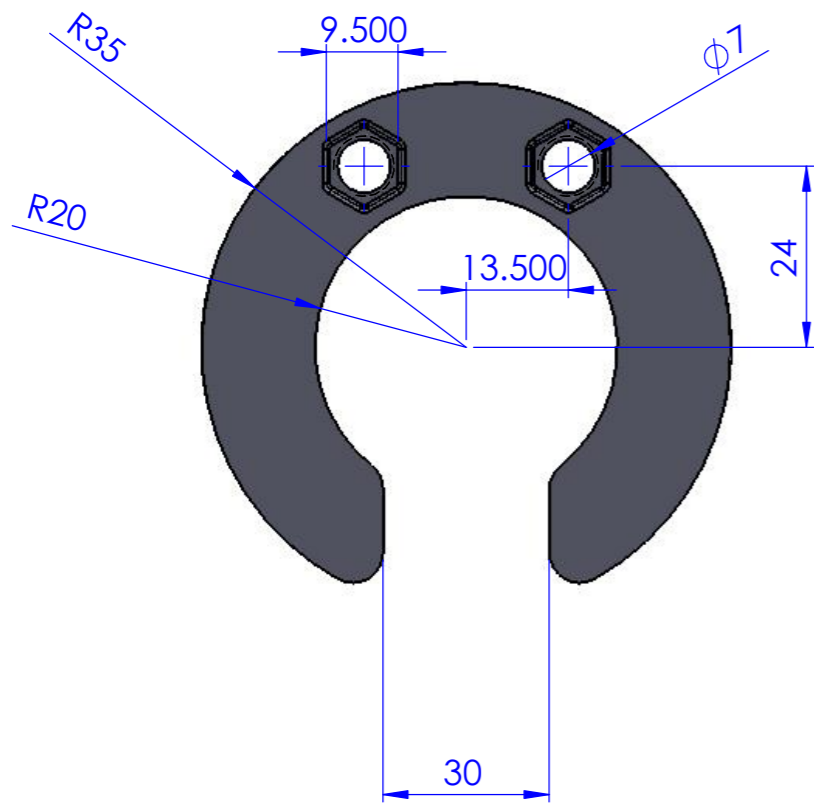
Scale: 1:2

Sheet 7 of
13



Unless otherwise specified
dimensions are in
millimetres.
Tolerances are:
XXX (0 PLS) ±0.5 MM
XX.X (1 PLS) ±0.1 MM
X.XX (2 PLS) ±0.03 MM
.XXX (3 PLS) ±0.007 MM
UNLESS OTHERWISE NOTED
ANGLE TOLERANCE ±0°30',
UNLESS NOTED
Sheet Name:
Sheet8

Name	Date	University of Limerick	
Drawn Donal Lenihan	02/05/2012	UNIVERSITY of LIMERICK OLLSCOIL LUIMNIGH	
Checked		SIZE A3	Title: Assy Standard 2 Parts . Exp
DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION	
DWG. NO.	Material:	Weight: g	
REV.	Scale: 1:2	Sheet 8 of 13	



Unless otherwise specified
dimensions are in
millimetres.

Tolerances are:

XXX (0 PLS) ±0.5 MM
XX.X (1 PLS) ±0.1 MM
X.XX (2 PLS) ±0.03 MM
.XXX (3 PLS) ±0.007 MM
UNLESS OTHERWISE NOTED

ANGLE TOLERANCE ±0°30',
UNLESS NOTED

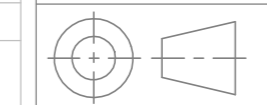
Sheet Name:

Sheet9

Name	Date
Drawn Donal Lenihan	02/05/2012
Checked	

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

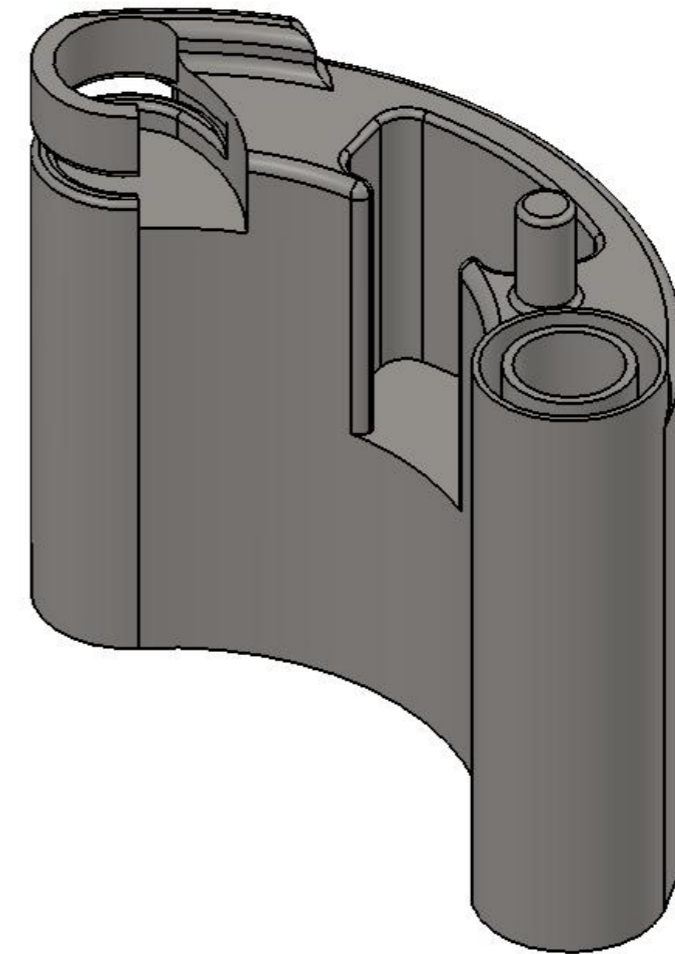
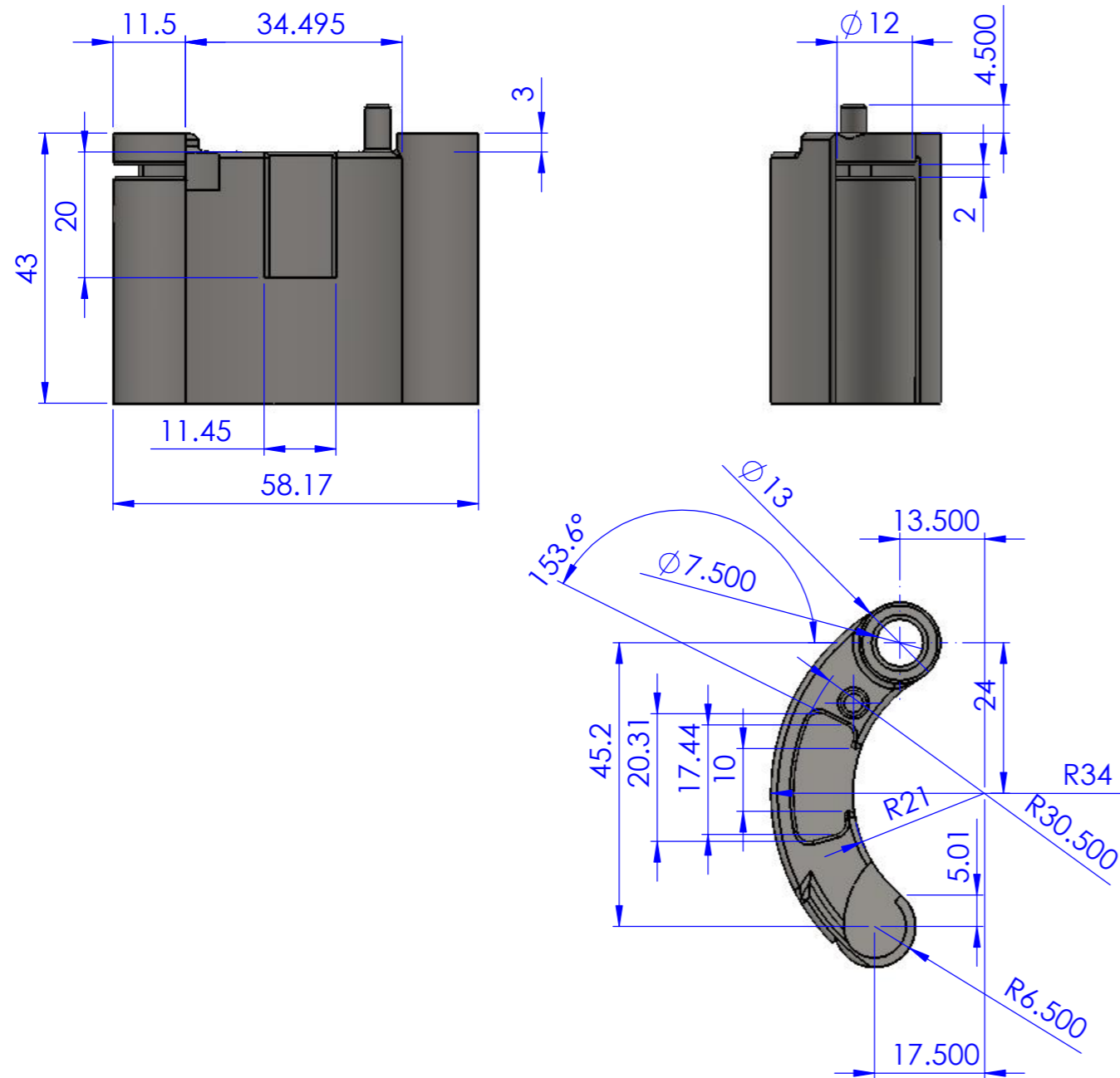



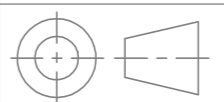
University of Limerick	UNIVERSITY of LIMERICK OILESCOIL LUIMNIGH
------------------------	--

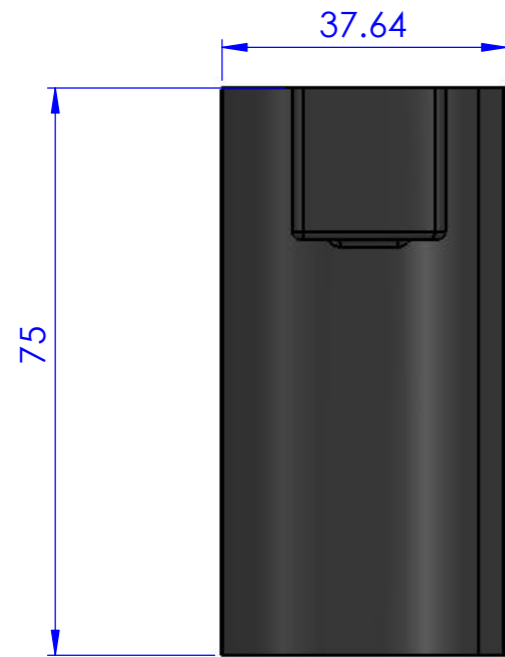
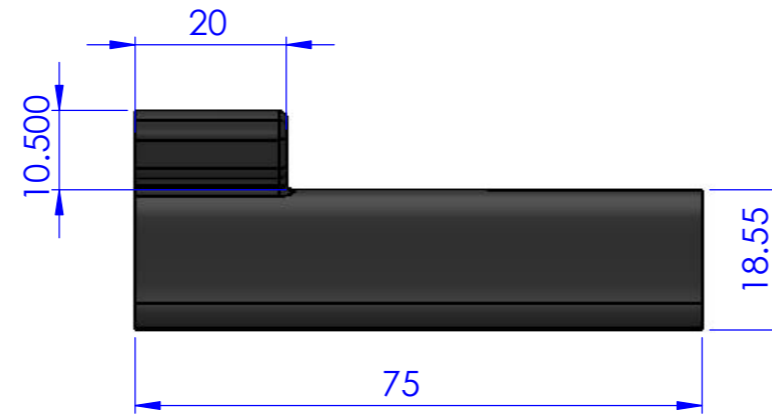
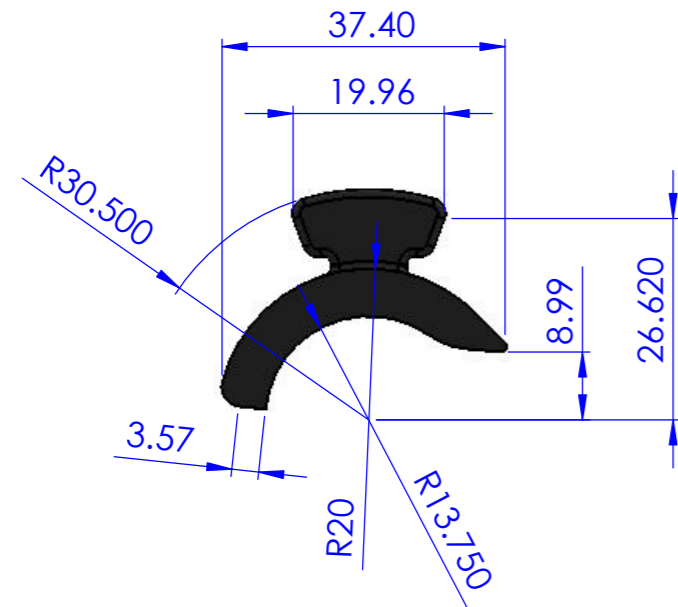
Title:

Push Plate Catch
Mechanism

DWG. NO.	Material:	Weight: g
REV.	Scale: 1:1	Sheet 9 of 13



Unless otherwise specified dimensions are in millimetres. Tolerances are: .XXX (0 PLS) ± 0.5 MM XX.X (1 PLS) ± 0.1 MM X.XX (2 PLS) ± 0.03 MM .XXX (3 PLS) ± 0.007 MM UNLESS OTHERWISE NOTED ANGLE TOLERANCE $\pm 0^\circ 30'$, UNLESS NOTED Sheet Name: Sheet10	Name	Date	University of Limerick  UNIVERSITY of LIMERICK OLLSCOIL LUIMNIGH	Title: Catch Mechanism Sapling L	
	Drawn Donal Lenihan	02/05/2012			SIZE A3
	Checked		DO NOT SCALE DRAWING	DWG. NO.:	Material:
				Weight: g	Scale: 1:1



Unless otherwise specified
dimensions are in
millimetres.

Tolerances are:

XXX (0 PLS) ±0.5 MM
XX.X (1 PLS) ±0.1 MM
X.XX (2 PLS) ±0.03 MM
.XXX (3 PLS) ±0.007 MM
UNLESS OTHERWISE NOTED

ANGLE TOLERANCE ±0°30',
UNLESS NOTED

Sheet Name:

Sheet11

Name	Date
Drawn Donal Lenihan	02/05/2012
Checked	
DO NOT SCALE DRAWING	

University
of Limerick



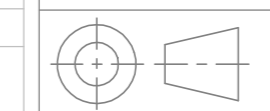
UNIVERSITY of LIMERICK
OILScoil LUIMNIGH

SIZE
A3

Title:

Sapling Hold Rubber R

THIRD ANGLE PROJECTION



DWG. NO.

Material:

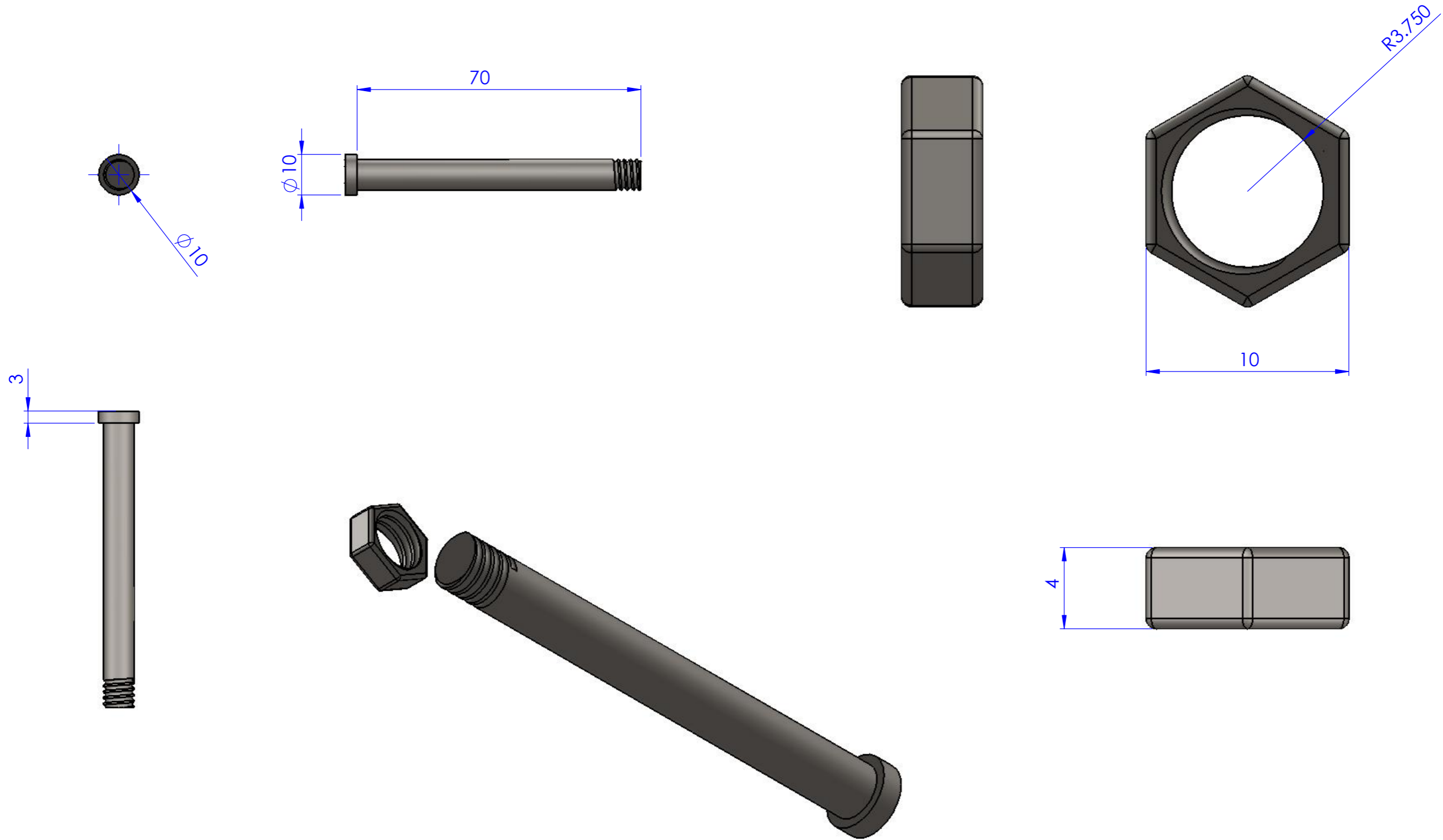
Weight: g

REV.

Scale: 1:1

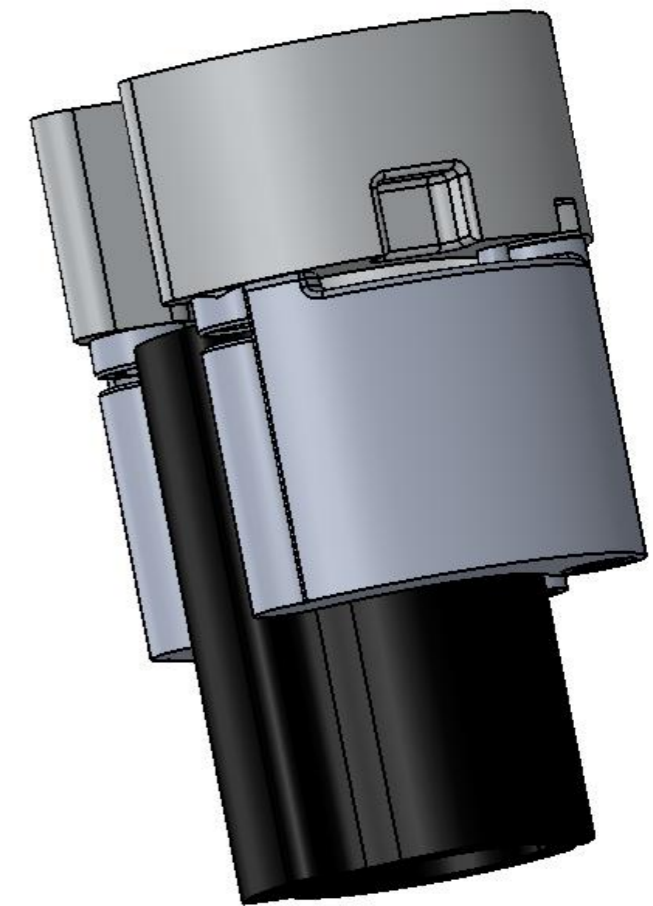
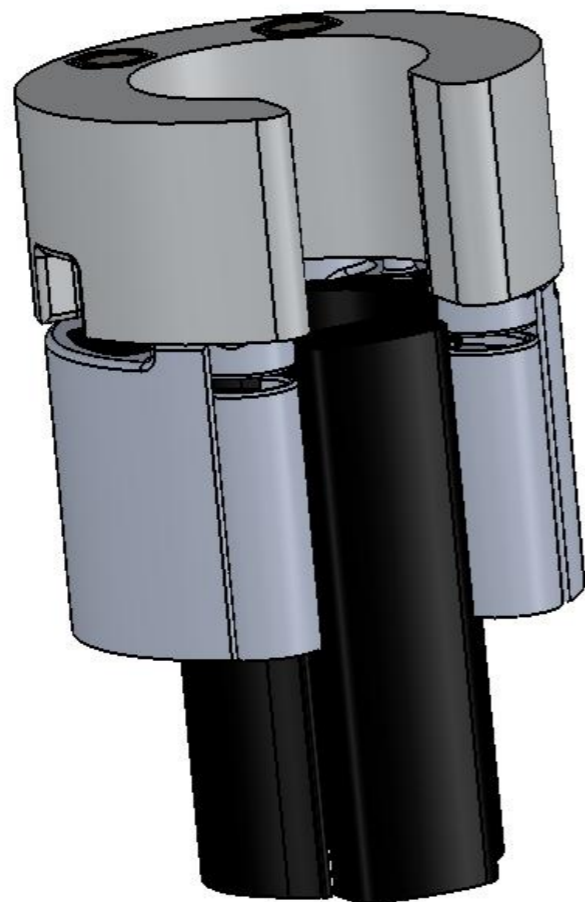
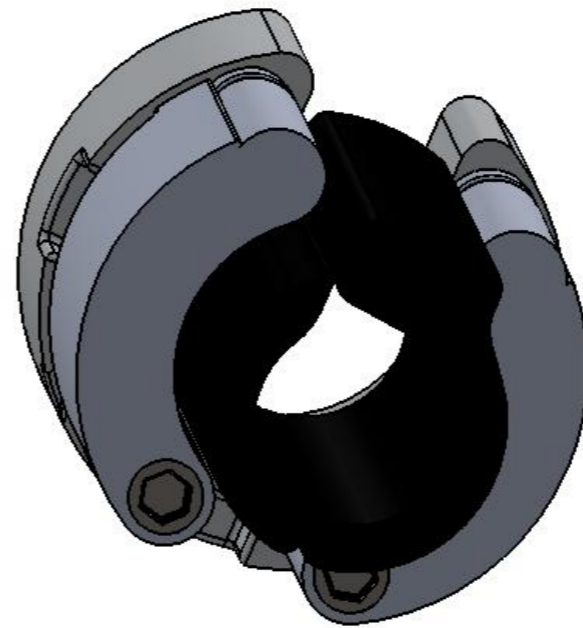
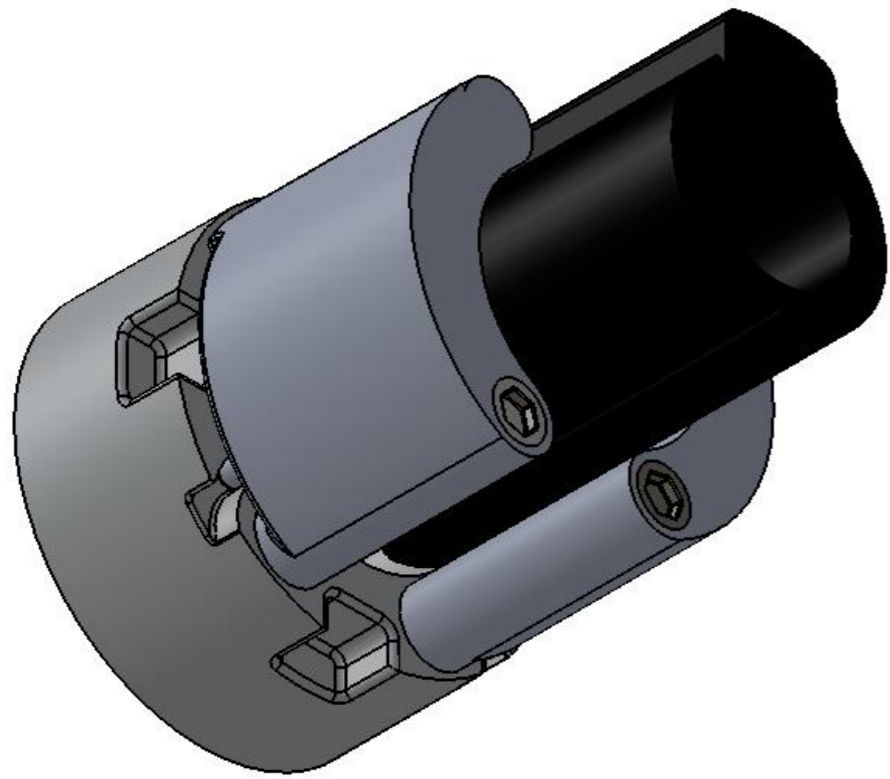
Sheet 11

of 13



Unless otherwise specified dimensions are in millimetres.
 Tolerances are:
 .XXX (0 PLS) ± 0.5 MM
 .XX.X (1 PLS) ± 0.1 MM
 .X.XX (2 PLS) ± 0.03 MM
 .XXX (3 PLS) ± 0.007 MM
 UNLESS OTHERWISE NOTED
 ANGLE TOLERANCE $\pm 0^{\circ}30'$, UNLESS NOTED
 Sheet Name:
Sheet12

Name	Date	University of Limerick	
Drawn Donal Lenihan	02/05/2012	UNIVERSITY of LIMERICK OLLSCOIL LUIMNIGH	
Checked		SIZE A3	Title: bolt
DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION	
		DWG. NO.	Material:
		REV.	Weight: g
		Scale: 1:1	Sheet 12 of 13



Unless otherwise specified
dimensions are in
millimetres.
Tolerances are:
XXX (0 PLS) ±0.5 MM
XX.X (1 PLS) ±0.1 MM
X.XX (2 PLS) ±0.03 MM
.XXX (3 PLS) ±0.007 MM
UNLESS OTHERWISE NOTED
ANGLE TOLERANCE ±0°30',
UNLESS NOTED
Sheet Name:
Sheet13

Name	Date
Drawn Donal Lenihan	02/05/2012
Checked	
DO NOT SCALE DRAWING	
THIRD ANGLE PROJECTION	

University of Limerick		UNIVERSITY of LIMERICK <small>OLLESCOIL LUIMNIGH</small>	
Title:		Assy Standard 2 Parts	
DWG. NO.	Material:	Weight: g	
REV.	Scale: 1:2	Sheet 13 of 13	