

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	everything/ QTY.
21		KQ2H		3
20		Newport HR-13 Micrometer	6061 Alloy	3
19		4mm dowel pin	SSTL	3
18		mini ball bearing 9x4x4	Material <not specified>	2
17	BSP 25 100 SL	IKO Linear slide	N/A	1
16	LC_PPE_AUG_070	micrometer mounting block	ALU	3
15	LC_PPE_AUG_059	locating pin	ALU	2
14	LC_PPE_AUG_054	weight	Brass	1
13	LC_PPE_AUG_052	Universal stamper baseplate cover	ALU	1
12	LC_PPE_AUG_051	Universal stamper baseplate	ALU	1
11	LC_PPE_AUG_050	Universal stamper stop pin	SSTL	1
10	LC_PPE_AUG_049	Universal stamper counterweight	SSTL	1
9	LC_PPE_AUG_048	Universal stamper roller	SSTL	1
8	LC_PPE_AUG_046	Universal stamper handle	SSTL	1
7	LC_PPE_AUG_046	Universal stamper handle	SSTL	1
6	LC_PPE_AUG_045	Universal stamper handle lock	SSTL	1
5	LC_PPE_AUG_044	Universal stamper brake handle	SSTL	1
4	LC_PPE_AUG_043	Universal stamper brake bar	SSTL	1
3	LC_PPE_AUG_042	Universal stamper bearing housing	Brass	1
2	LC_PPE_AUG_041	Universal stamper mobile	ALU	1
1	LCPPE-AUG-040	universal-stamper-stand	ALU	1

PARTS LIST

NOTES (UNLESS OTHERWISE SPECIFIED):

DIMENSIONS ARE IN MILLIMETERS

GENERAL TOLERANCES:
 0<X<50mm: ±0.1mm
 50<X<150mm: ±0.2mm
 100<X<1000mm: ±0.3mm
 1000>: ±0.5mm
 ANGULAR: ±0.2°

1. DEBUR AND BREAK SHARP EDGES

QUANTITY: 2

MATERIAL:

SURFACE TEXTURE (µm): 3.2

UNLESS STATED

FINISH:

	NAME	DATE
DRAWN	LC	27/07/2016
CHK'D		
APPV'D		

DO NOT SCALE DRAWING

A3

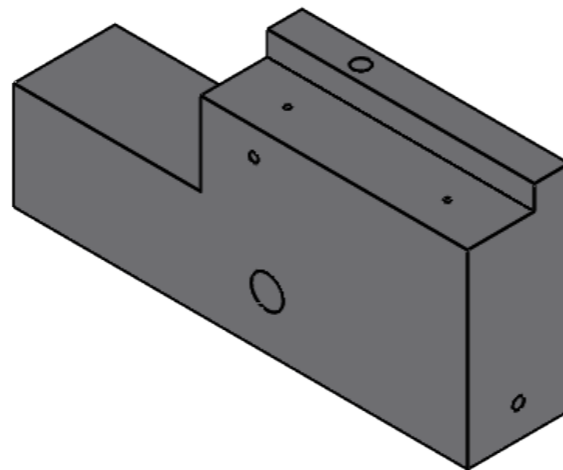
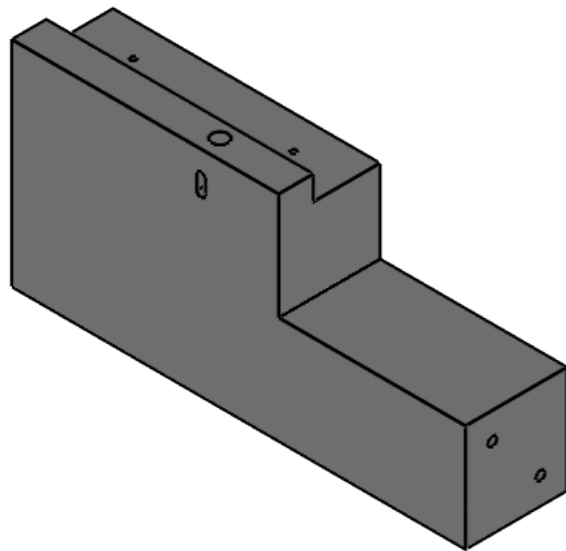
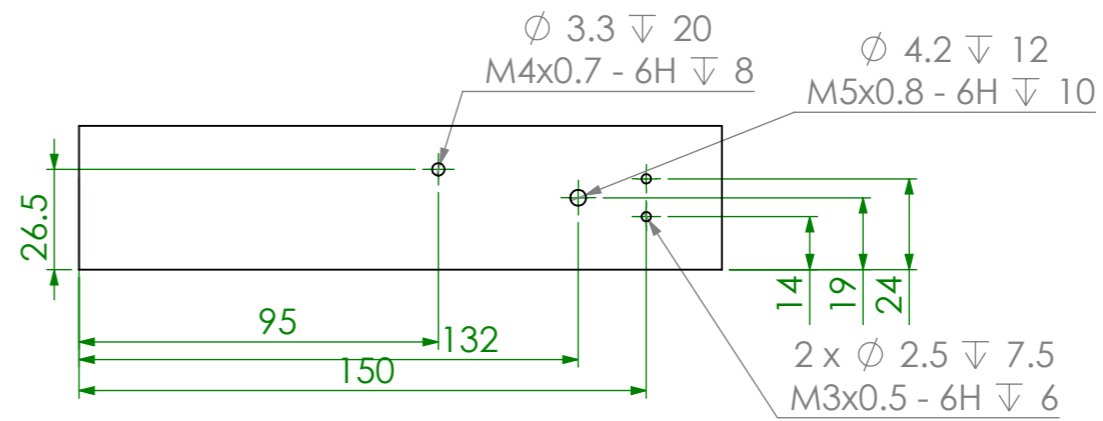
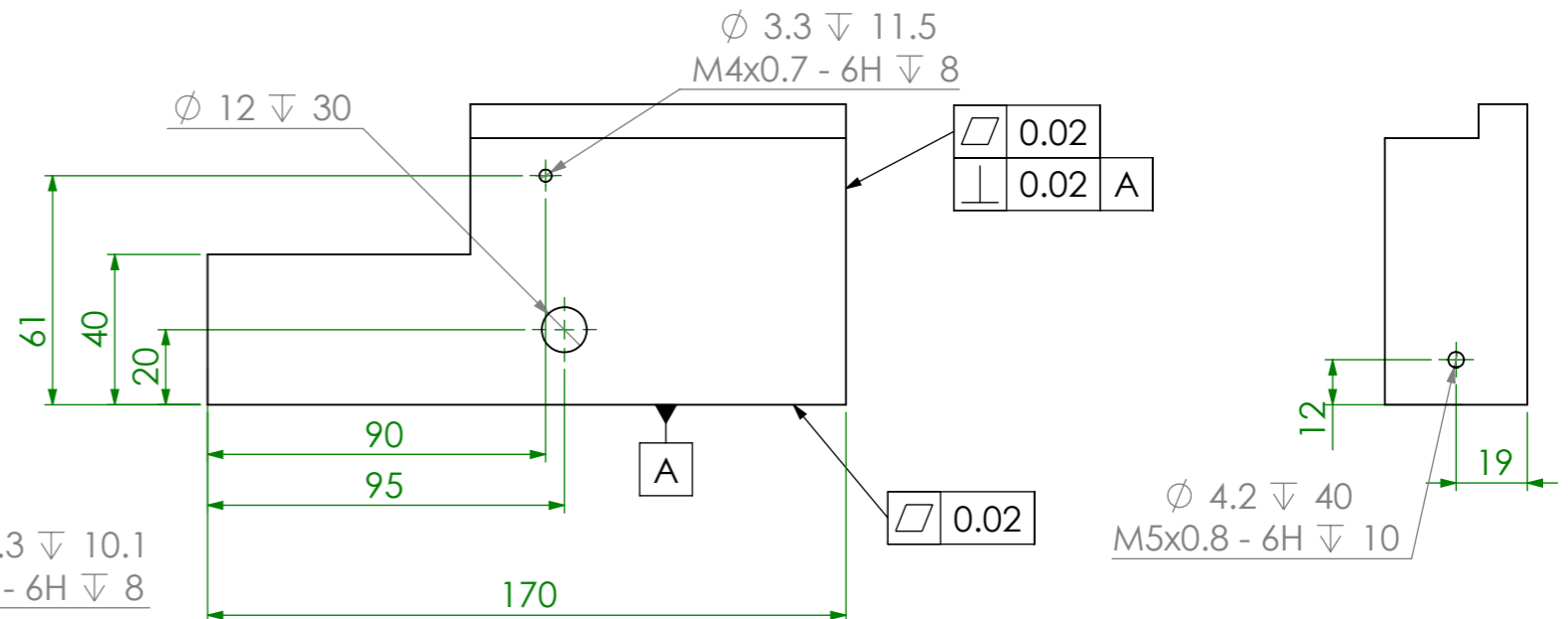
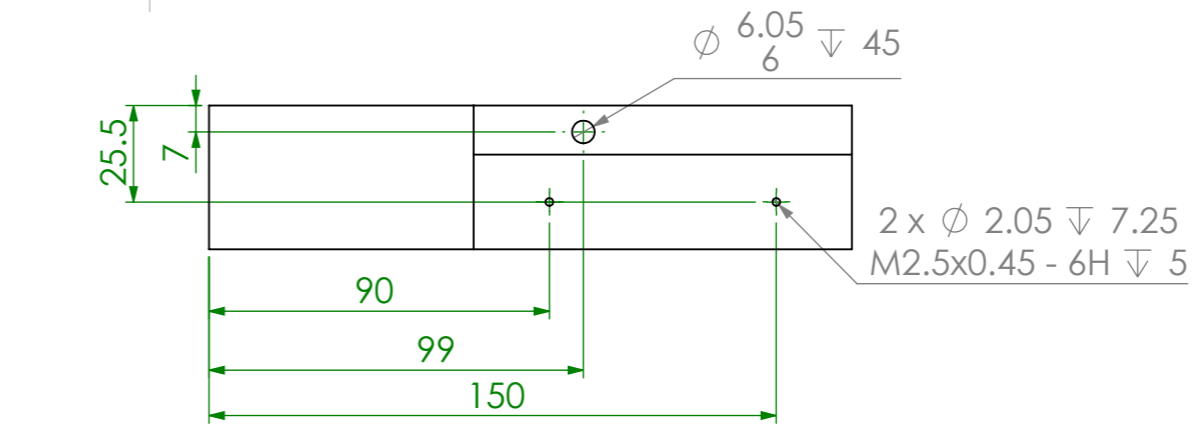
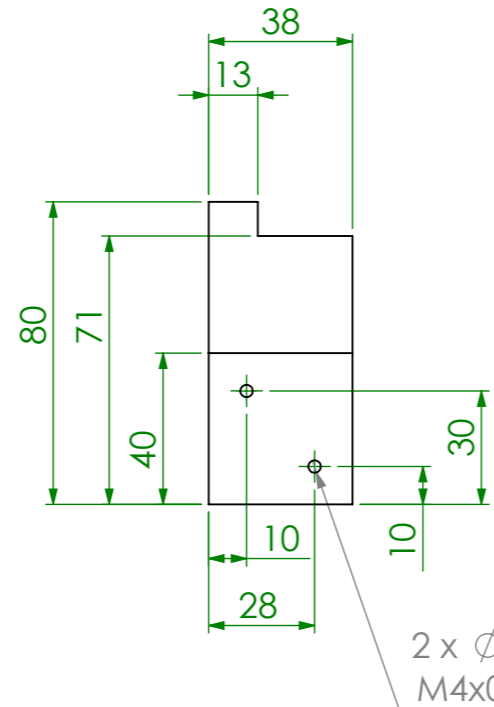
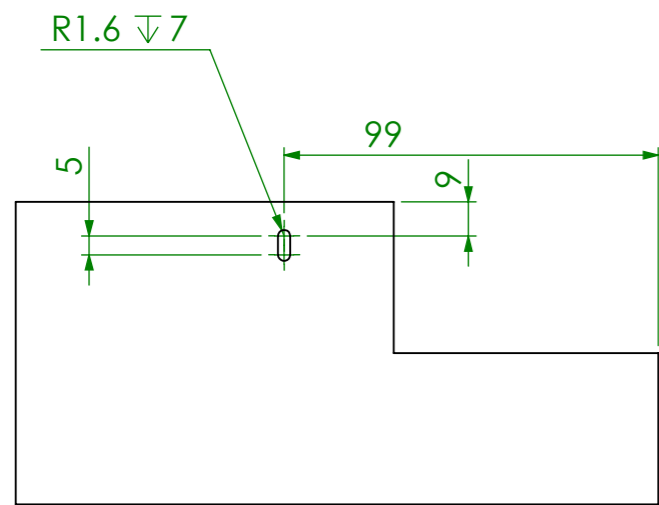


PROJECT: ATLAS Upgrade
 SUB-SYSTEM: Pixel module assembly tooling

ASSEMBLY:
 PART NAME: Universal stamper

DWG NO. LC_PPE_AUG_ASM_015 REV: v1

SCALE: 1:5 PROJ: SHEET 1 OF 7



NOTES (UNLESS OTHERWISE SPECIFIED):

DIMENSIONS ARE IN MILLIMETERS

GENERAL TOLERANCES:
 0<X<50mm: ±0.1mm
 50<X<150mm: ±0.2mm
 150<X<1000mm: ±0.3mm
 1000>: ±0.5mm
 ANGULAR: ±0.2°

1. DEBUR AND BREAK SHARP EDGES

QUANTITY: 2

MATERIAL: ALU

SURFACE TEXTURE (µm): 3.2

UNLESS STATED

FINISH:

	NAME	DATE
DRAWN	LC	27/07/2016
CHK'D		
APPV'D		

DO NOT SCALE DRAWING

A3



PROJECT: ATLAS Upgrade

SUB-SYSTEM: Pixel module assembly tooling

ASSEMBLY: Universal stamper

PART NAME: UNIVERSAL STAMPER STAND

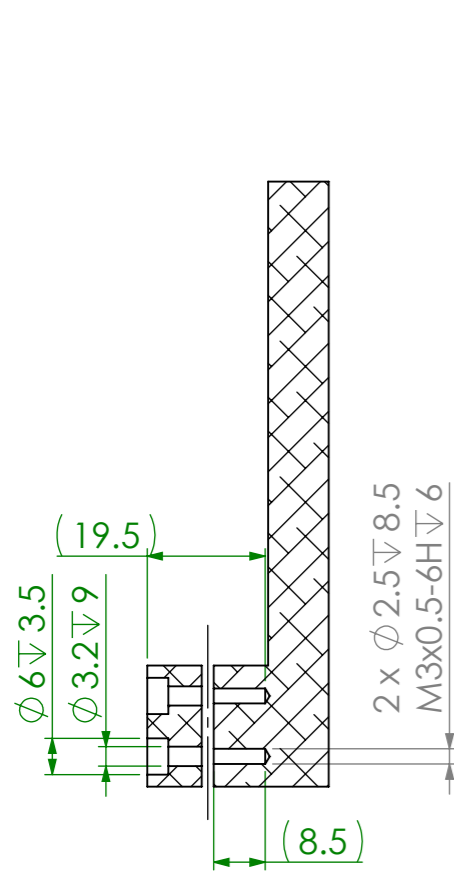
DWG NO. LC_PPE_AUG_040

REV: v1

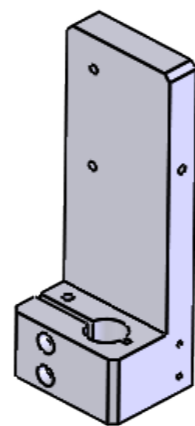
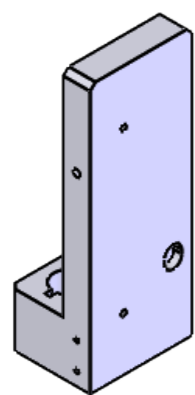
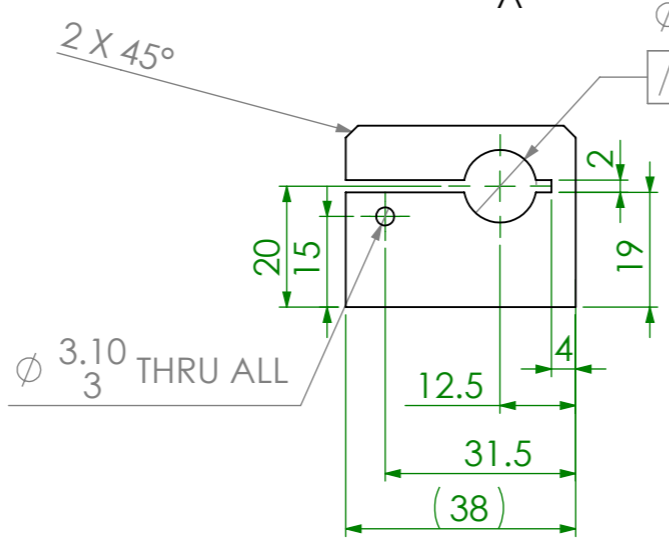
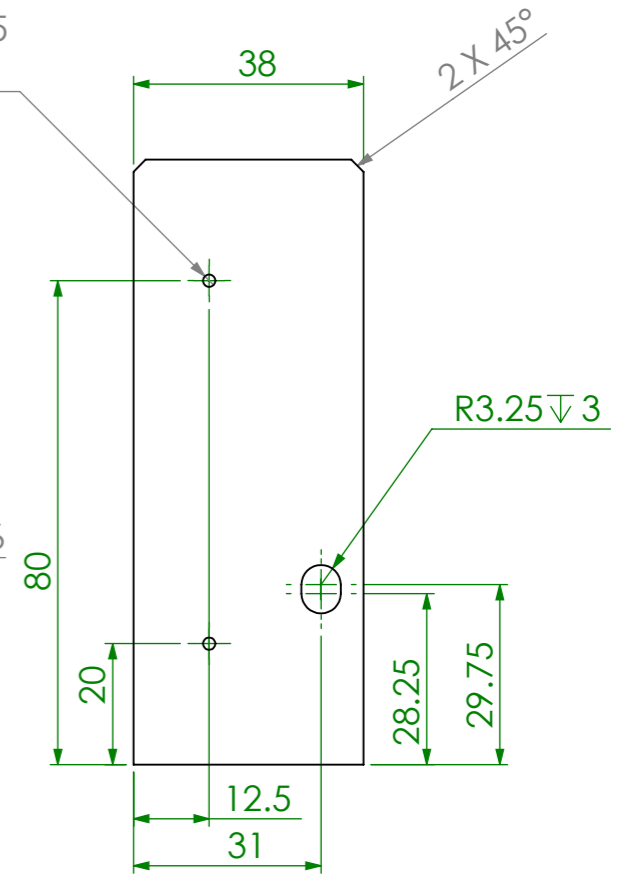
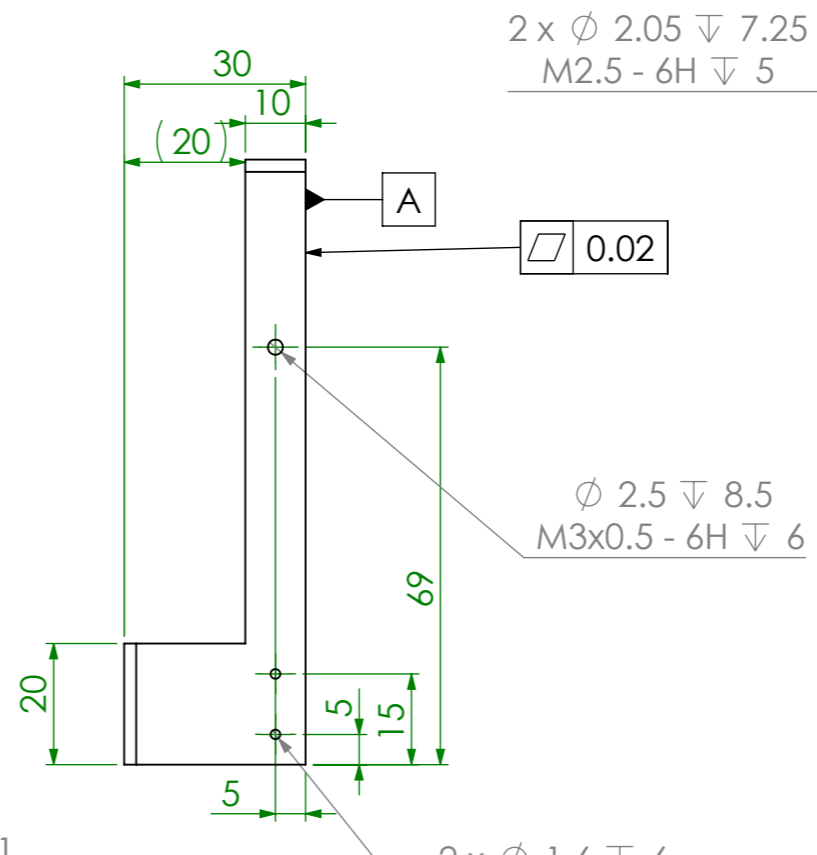
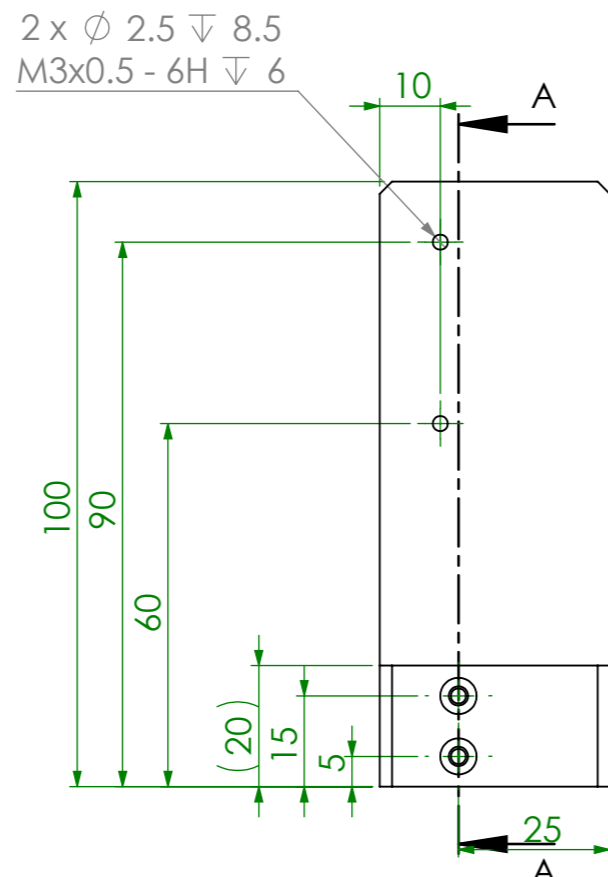
SCALE: 1:2

PROJ:

SHEET 2 OF 7



SECTION A-A
SCALE 1 : 1.25



NOTES (UNLESS OTHERWISE SPECIFIED):

DIMENSIONS ARE IN MILLIMETERS

GENERAL TOLERANCES:
 0<X<50mm: ±0.1mm
 50<X<150mm: ±0.2mm
 100<X<1000mm: ±0.3mm
 1000>: ±0.5mm
 ANGULAR: ±0.2°

1. DEBUR AND BREAK SHARP EDGES

QUANTITY: 2

MATERIAL: ALU

SURFACE TEXTURE (µm): 3.2

UNLESS STATED

FINISH:

	NAME	DATE
DRAWN	LC	27/07/2016
CHK'D		
APPV'D		

DO NOT SCALE DRAWING

A3



PROJECT: ATLAS Upgrade

SUB-SYSTEM: Pixel module assembly tooling

ASSEMBLY: Universal stamper

PART NAME: UNIVERSAL STAMPER SLIDE

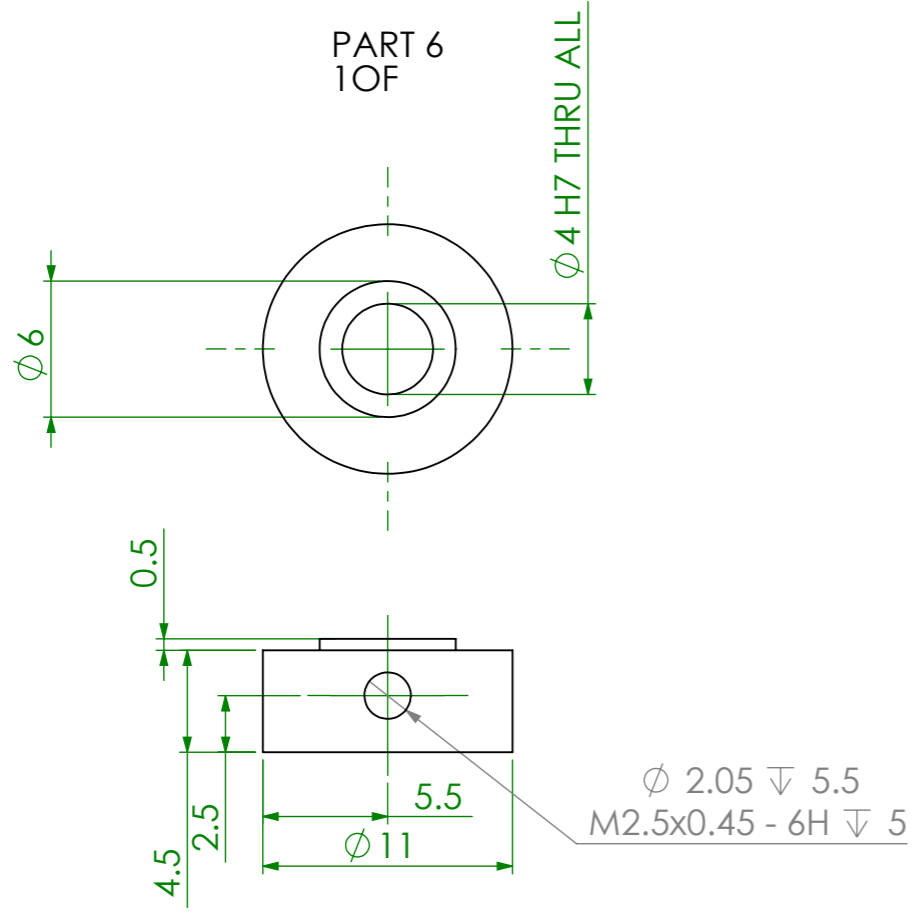
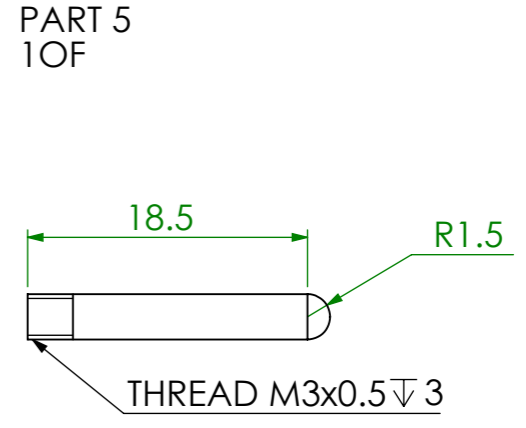
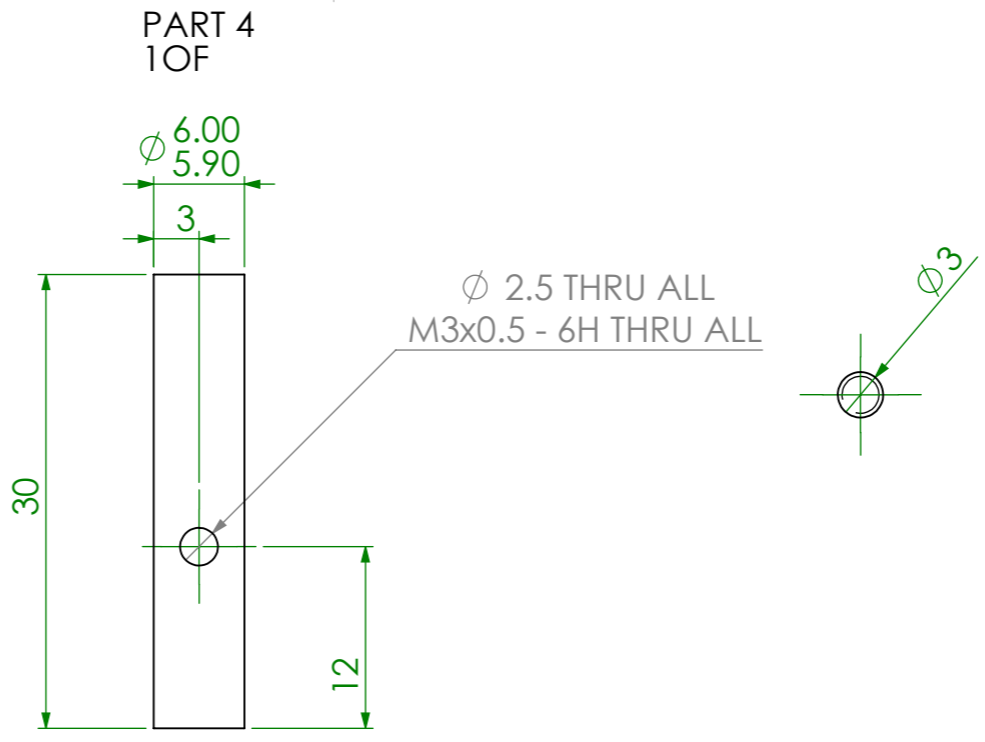
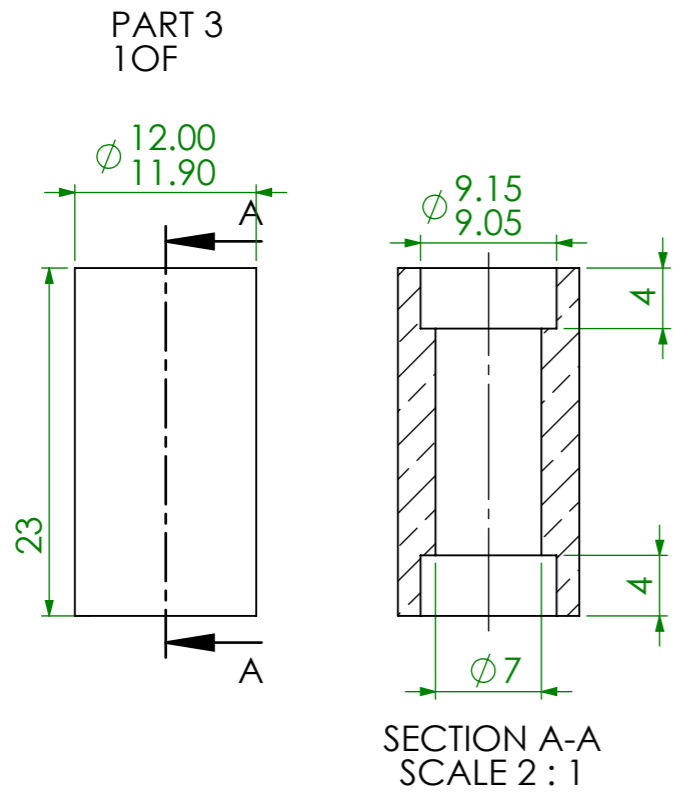
DWG NO. LC_PPE_AUG_041

REV: v1

SCALE:1:2

PROJ:

SHEET 3 OF 7



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ
6	LC_PPE_AUG_045	Universal stamper handle lock	SSTL	1
5	LC_PPE_AUG_044	Universal stamper brake handle	SSTL	1
4	LC_PPE_AUG_043	Universal stamper brake bar	SSTL	1
3	LC_PPE_AUG_042	Universal stamper bearing housing	Brass	1

PARTS LIST

NOTES (UNLESS OTHERWISE SPECIFIED):

DIMENSIONS ARE IN MILLIMETERS

GENERAL TOLERANCES:
 0<X<50mm: \pm 0.1mm
 50<X<150mm: \pm 0.2mm
 100<X<1000mm: \pm 0.3mm
 1000>: \pm 0.5mm
 ANGULAR: \pm 0.2°

1. DEBUR AND BREAK SHARP EDGES

QUANTITY:

MATERIAL:

SURFACE TEXTURE (μ m): 3.2

∇ UNLESS STATED

FINISH:

DO NOT SCALE DRAWING

PROJECT: ATLAS Upgrade
SUB-SYSTEM: Pixel module assembly tooling

ASSEMBLY:

PART NAME:

DRAWN: LC
CHK'D:
APPV'D:

DATE: 27/07/2016

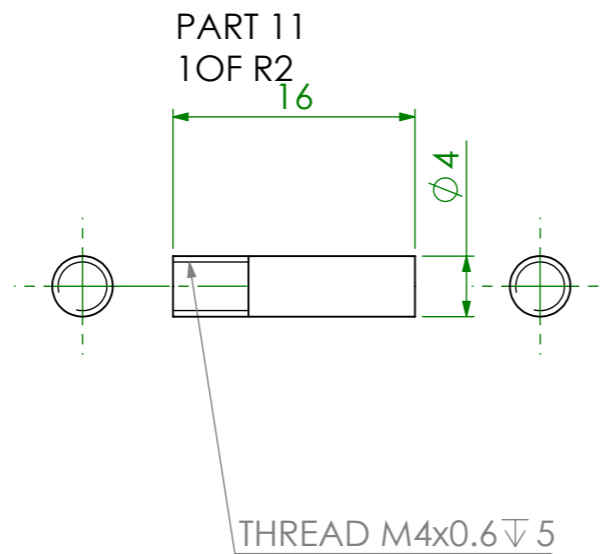
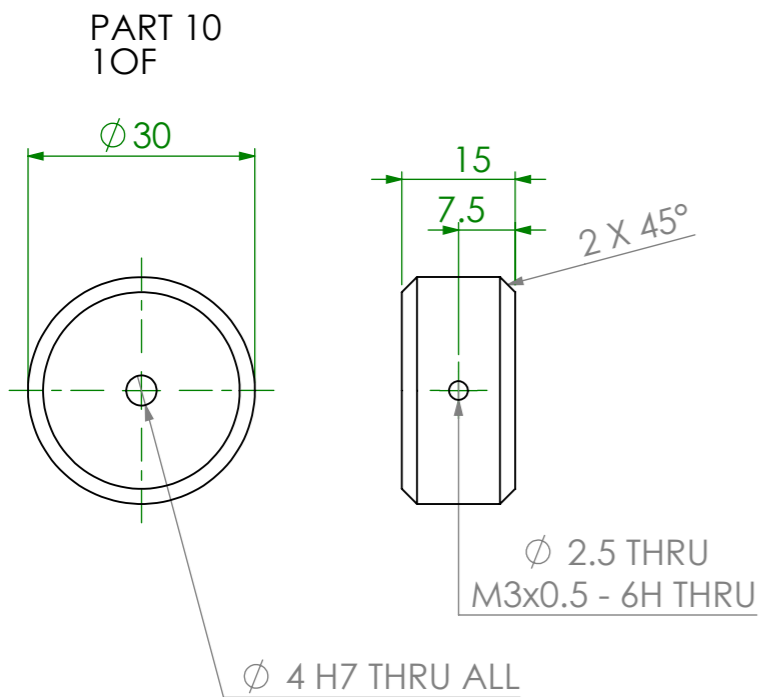
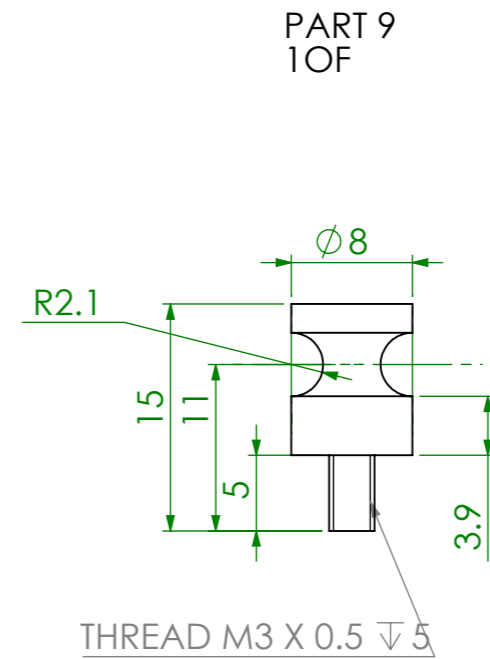
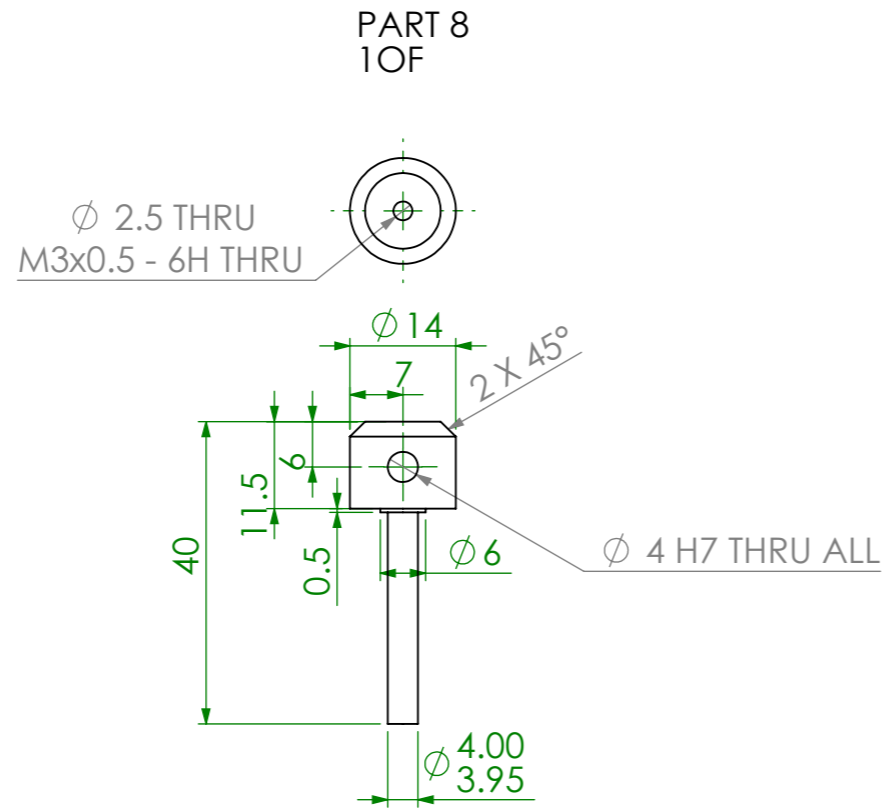
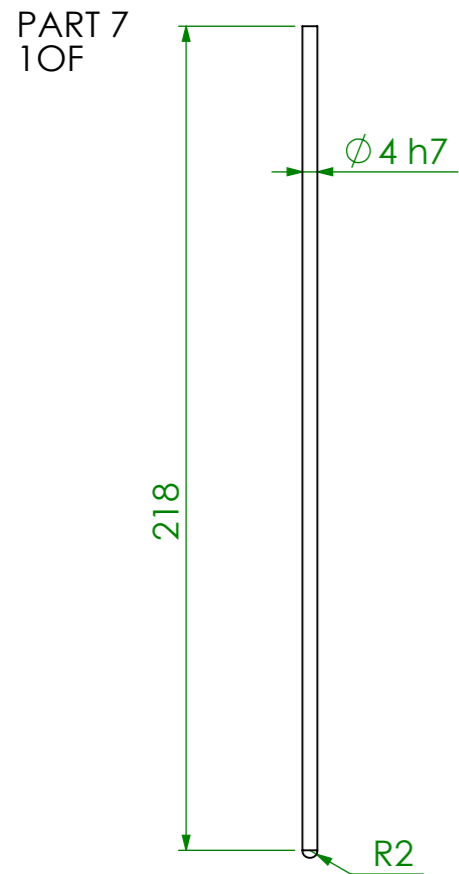
DWG NO.:
REV:

SCALE: 1:2
PROJ:

A3

University of Glasgow Department of Physics and Astronomy

SHEET 4 OF 7



11	LC+PPE_AUG_050	Universal stamper stop pin	SSTL	1
10	LC_PPE_AUG_049	Universal stamper counterweight	SSTL	1
9	LC_PPE_AUG_048	Universal stamper roller	SSTL	1
8	LC_PPE_AUG_047	Universal stamper handle pivot	SSTL	1
7	LC_PPE_AUG_046	Universal stamper handle	SSTL	1
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ

PARTS LIST

NOTES (UNLESS OTHERWISE SPECIFIED):

DIMENSIONS ARE IN MILLIMETERS

GENERAL TOLERANCES:
 0<X<50mm: ± 0.1 mm
 50<X<150mm: ± 0.2 mm
 100<X<1000mm: ± 0.3 mm
 1000>: ± 0.5 mm
 ANGULAR: $\pm 0.2^\circ$

1. DEBUR AND BREAK SHARP EDGES

QUANTITY: 2

MATERIAL:

SURFACE TEXTURE (μm): 3.2

FINISH:

∇ UNLESS STATED

	NAME	DATE
DRAWN	LC	27/07/2016
CHK'D		
APPV'D		

DO NOT SCALE DRAWING

A3

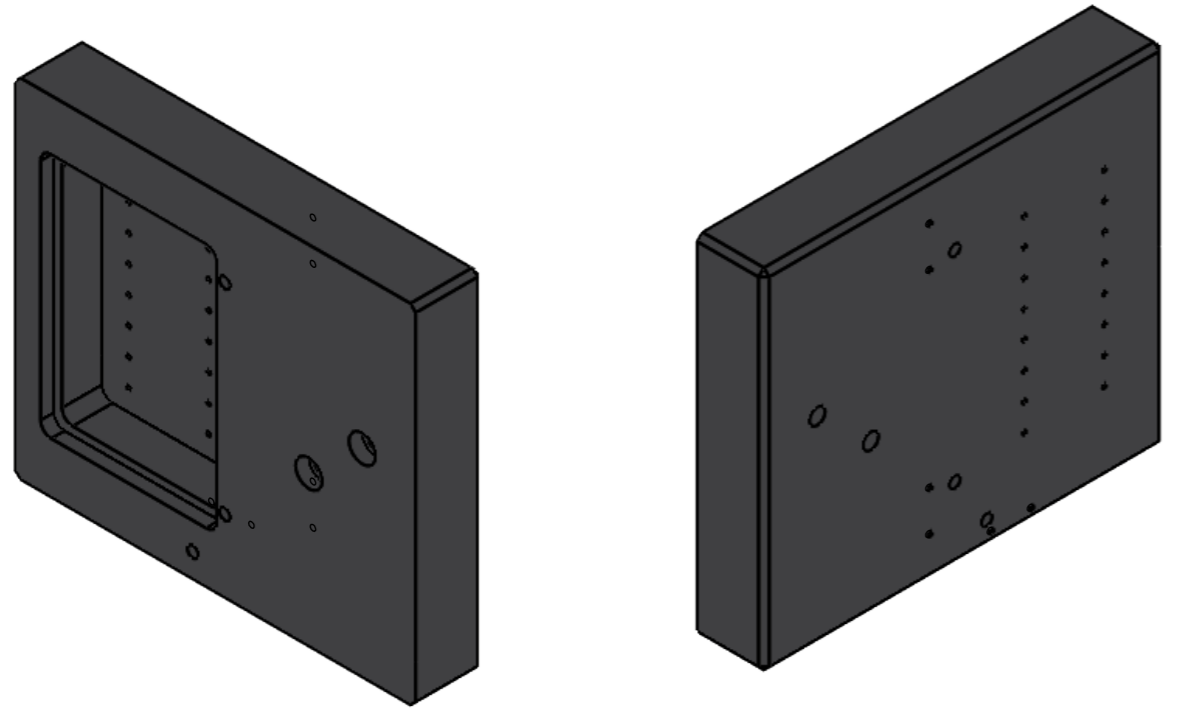
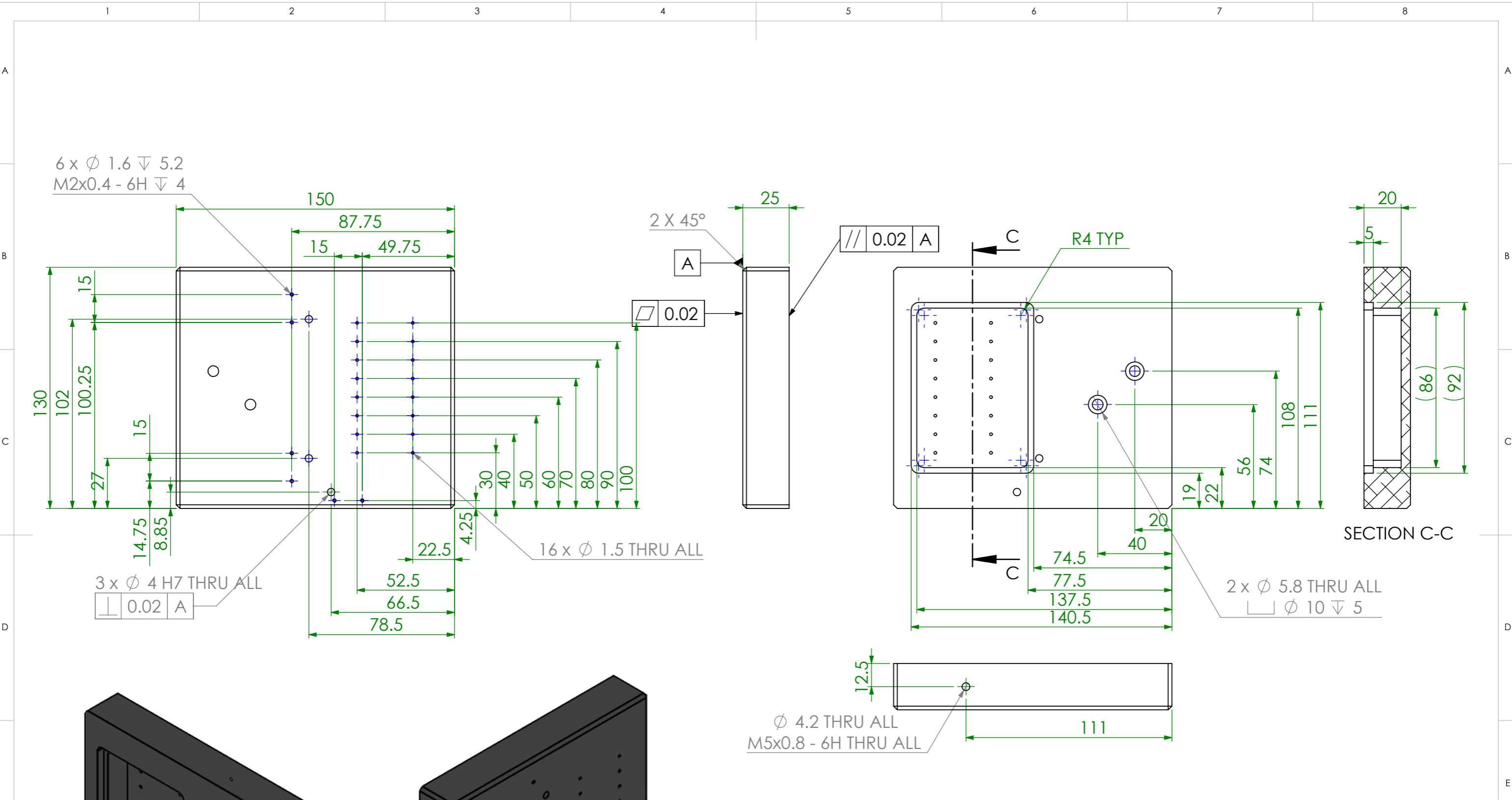


PROJECT: ATLAS Upgrade
SUB-SYSTEM: Pixel module assembly tooling

ASSEMBLY:
PART NAME: Universal stamper

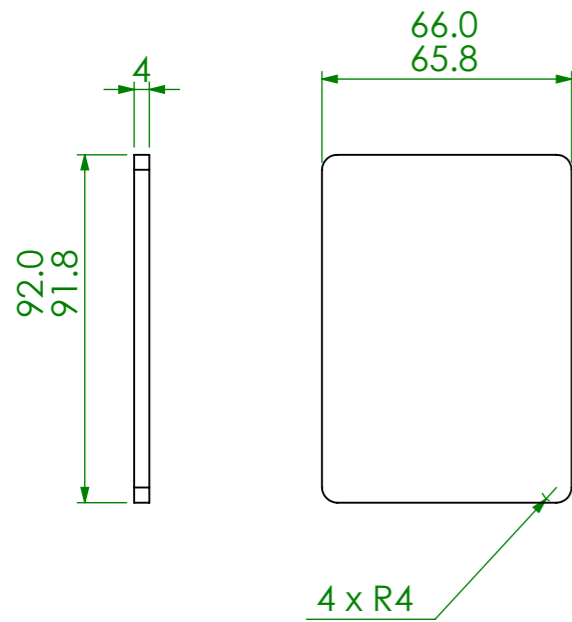
DWG NO. **REV:** v1

SCALE: 1:2 **PROJ:** SHEET 5 OF 7

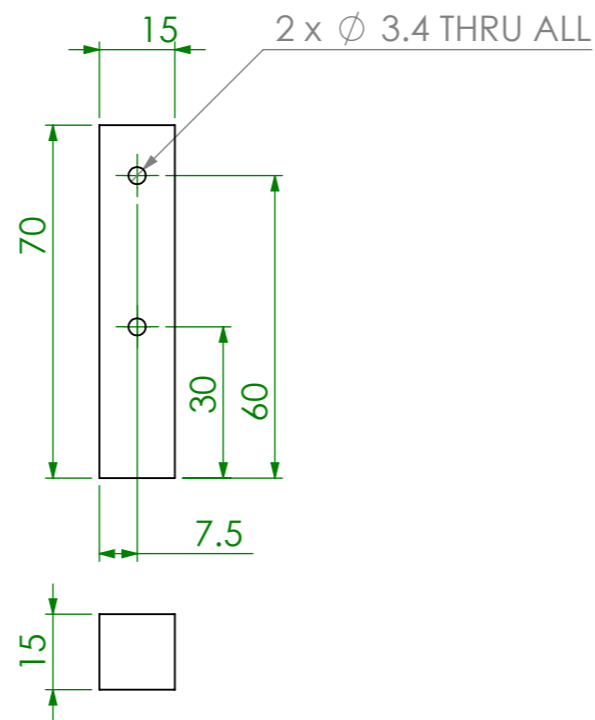


NOTES (UNLESS OTHERWISE SPECIFIED):		DO NOT SCALE DRAWING		A3
DIMENSIONS ARE IN MILLIMETERS		QUANTITY:	2	
GENERAL TOLERANCES: 0<X<50mm: ±0.1mm 50<X<150mm: ±0.2mm 100<X<1000mm: ±0.3mm 1000>: ±0.5mm ANGULAR: ±0.2°		MATERIAL:	ALU	
1. DEBUR AND BREAK SHARP EDGES		SURFACE TEXTURE (µm):	3.2	
		FINISH:	UNLESS STATED	
		DRAWN	NAME	DATE
		LC		27/07/2016
		CHK'D		
		APP'V'D		
		PROJECT:	ATLAS Upgrade	
		SUB-SYSTEM:	Pixel module assembly tooling	
		ASSEMBLY:	Universal Stamper	
		PART NAME:	Universal stamper baseplate	
		DWG NO.	LC_PPE_AUM_051	REV: v1
		SCALE:1:2	PROJ:	SHEET 6 OF 7

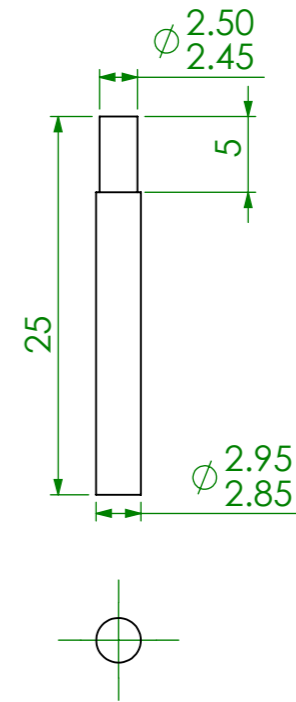




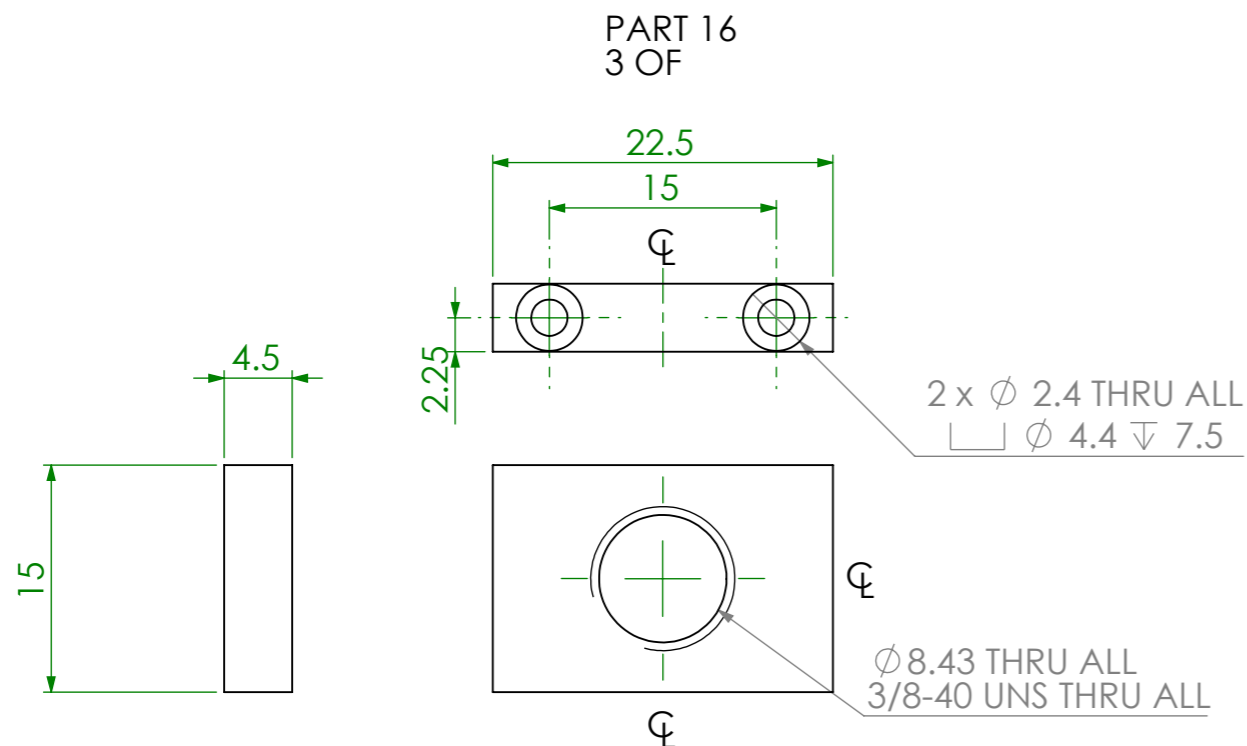
PART 13
1 OF



PART 14
1 OF



PART 15
1 OF



PART 16
3 OF

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	REQ
16	LC_PPE_AUG_070	micrometer mounting block	ALU	3
15	LC_PPE_AUG_059	locating pin	ALU	1
14	LC_PPE_AUG_054	weight	Brass	1
13	LC_PPE_AUG_051	Universal stamper baseplate cover	ALU	1

PARTS LIST

NOTES (UNLESS OTHERWISE SPECIFIED):
 DIMENSIONS ARE IN MILLIMETERS
 GENERAL TOLERANCES:
 0<X<50mm: ±0.1mm
 50<X<150mm: ±0.2mm
 100<X<1000mm: ±0.3mm
 1000>: ±0.5mm
 ANGULAR: ±0.2°
 1. DEBUR AND BREAK SHARP EDGES

QUANTITY: 2
MATERIAL: N/A
SURFACE TEXTURE (µm): 3.2
 UNLESS STATED
FINISH:

	NAME	DATE
DRAWN	LC	27/07/2016
CHK'D		
APPV'D		

DO NOT SCALE DRAWING A3

University of Glasgow Department of Physics and Astronomy
 Institute for Gravitational Research

PROJECT: ATLAS Upgrade
SUB-SYSTEM: Pixel module assembly tooling
ASSEMBLY:
PART NAME:

DWG NO. **REV:** v1

SCALE: 1:2 **PROJ:** **SHEET 7 OF 7**