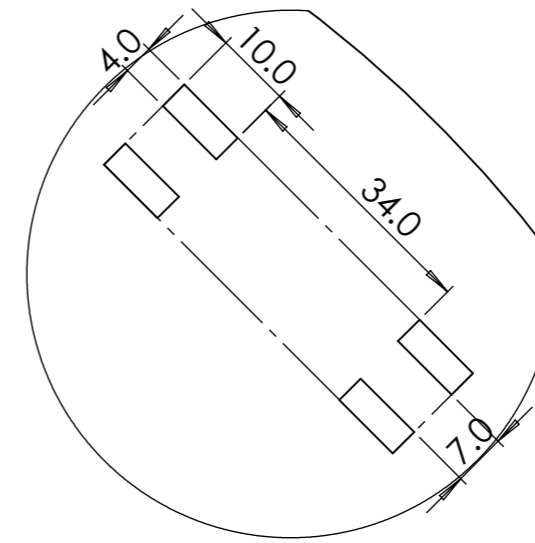
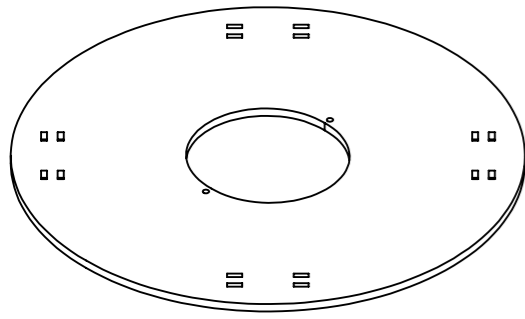
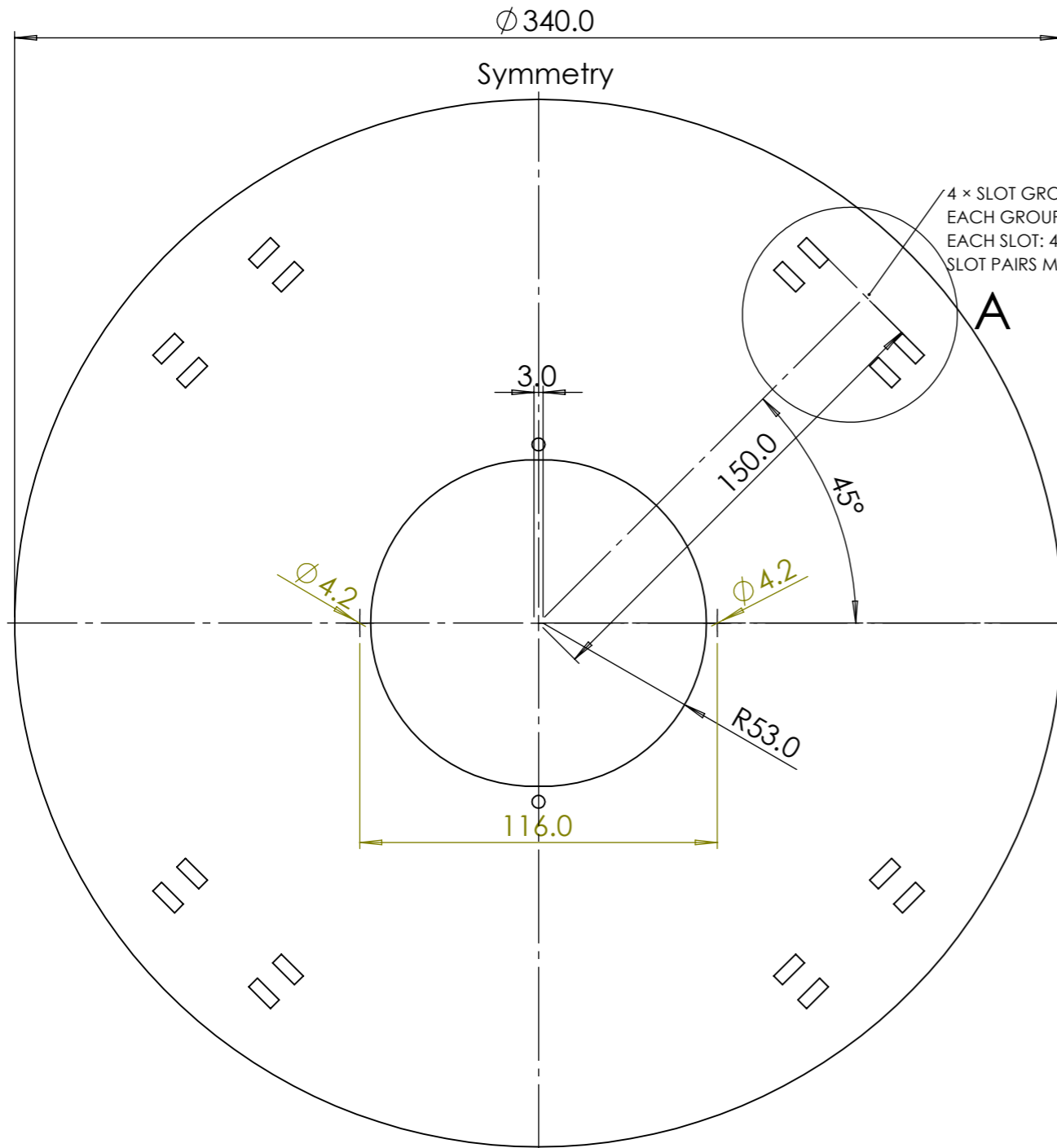


| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-------------|------------------|------|
| 1 | 1 | Base Plate | 1 |
| 2 | 2 | Ducts | 1 |
| 3 | 3 | Thruster Holder | 4 |
| 4 | 4 | Level 2 Platform | 1 |
| 5 | 5 | Battery Holder | 1 |
| 6 | 6 | Cube Support | 1 |
| 7 | 7 | Cube Assembly | 1 |
| 8 | 8 | Sensor Holder | 1 |

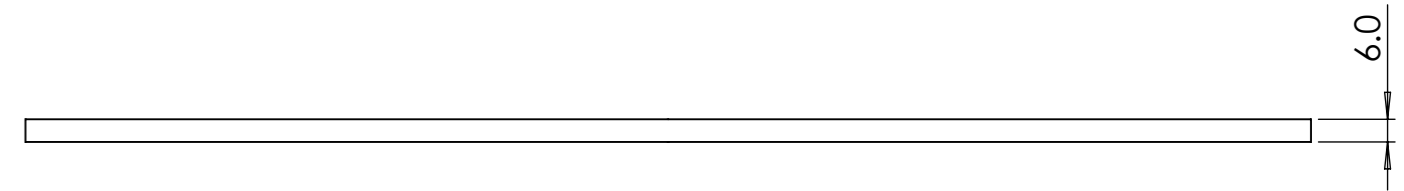
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| DRAWN BY Frederick Knight | | DATE OF ISSUE 3.5.2026 | | TOLERANCE UNLESS OTHERWISE STATED | | SURFACE TEXTURE | | University of Southampton School of Engineering <small>THE INFORMATION HEREIN CANNOT BE COPIED OR DISCLOSED, EXCEPT BY WRITTEN AGREEMENT WITH THE UNIVERSITY OF SOUTHAMPTON.</small> | |
| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Cube-Sat Full Assembly | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:2 | | SHEET NUMBER 1 | | No. OFF 1 | |
| A3 DO NOT SCALE | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER | | REVISION A | |



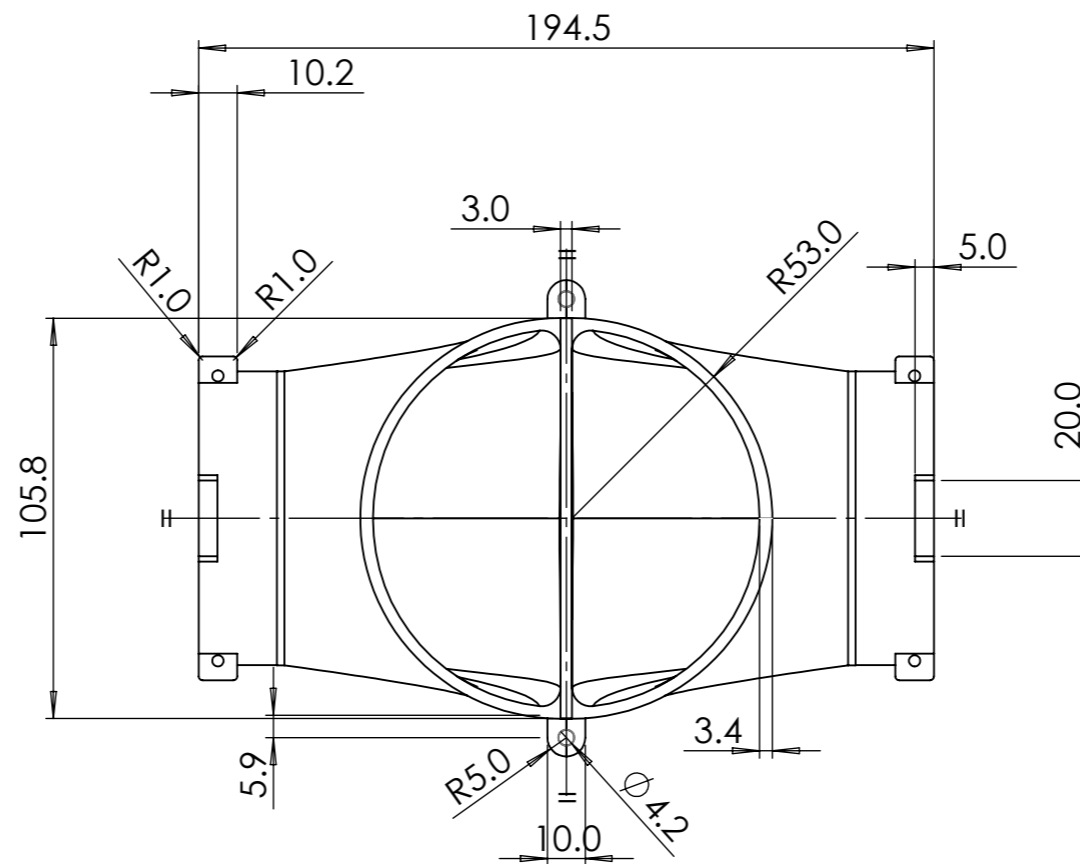
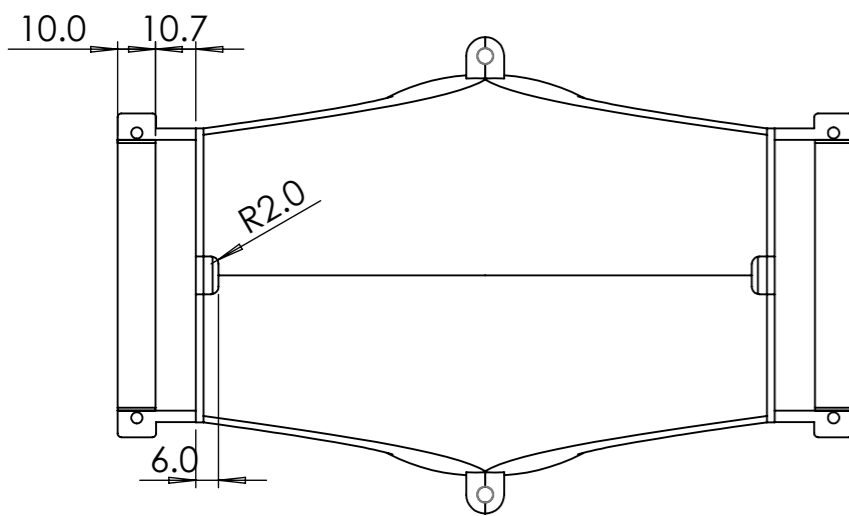
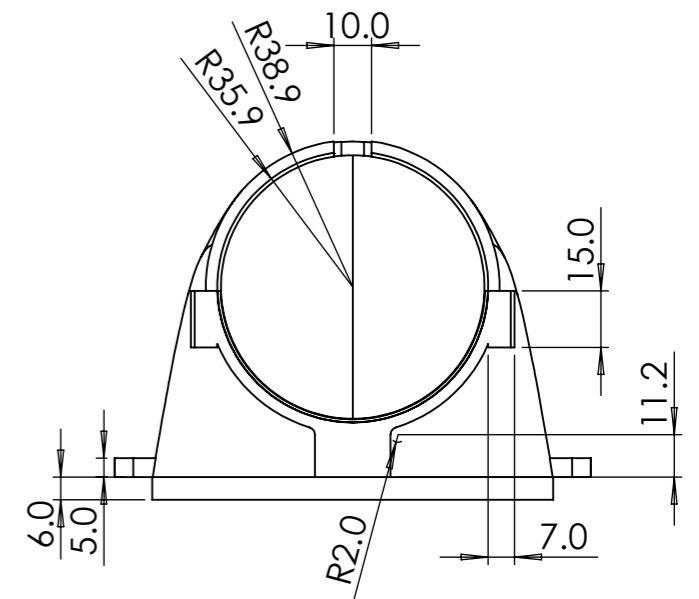
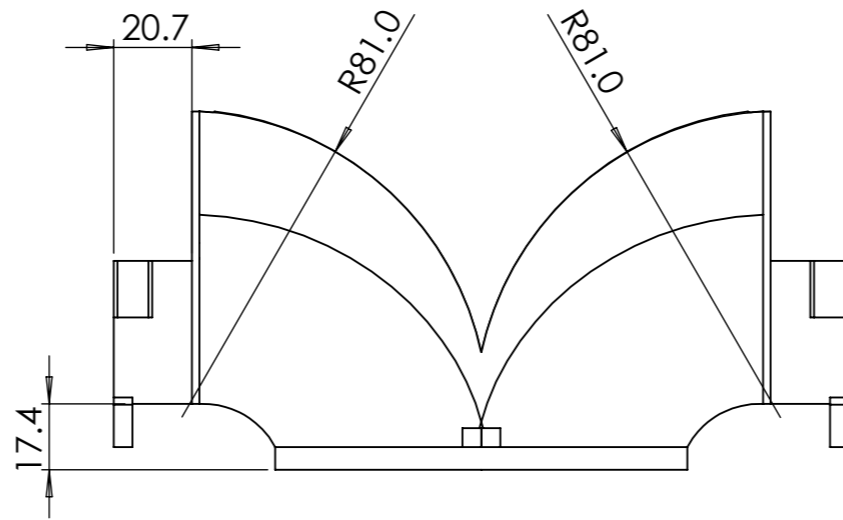
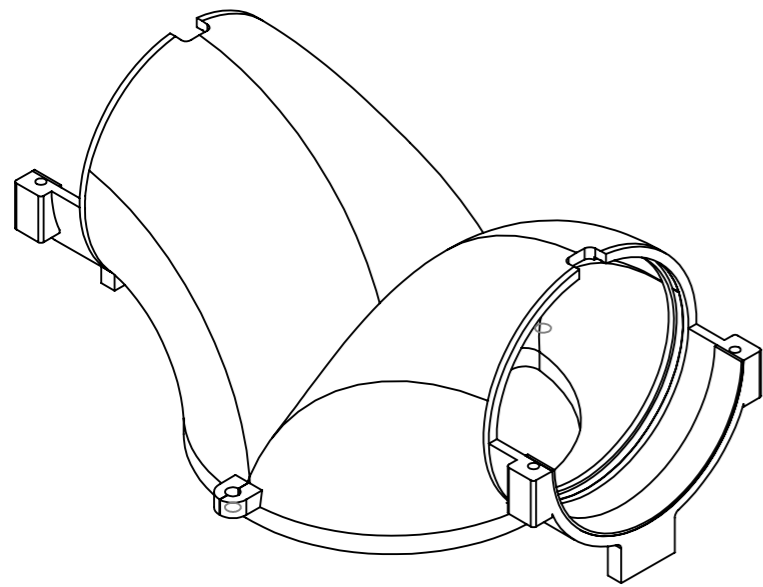
DETAIL A
SCALE 1 : 1



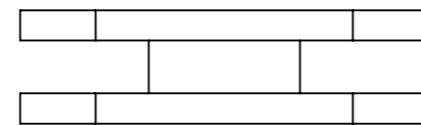
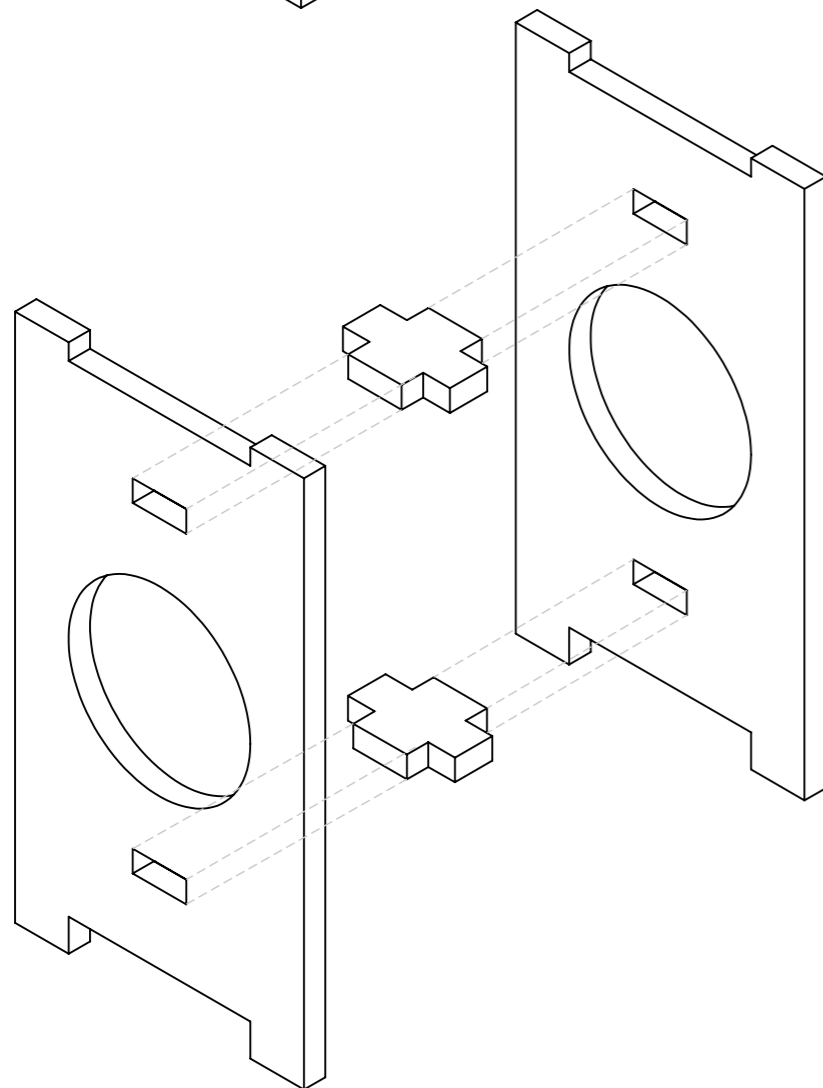
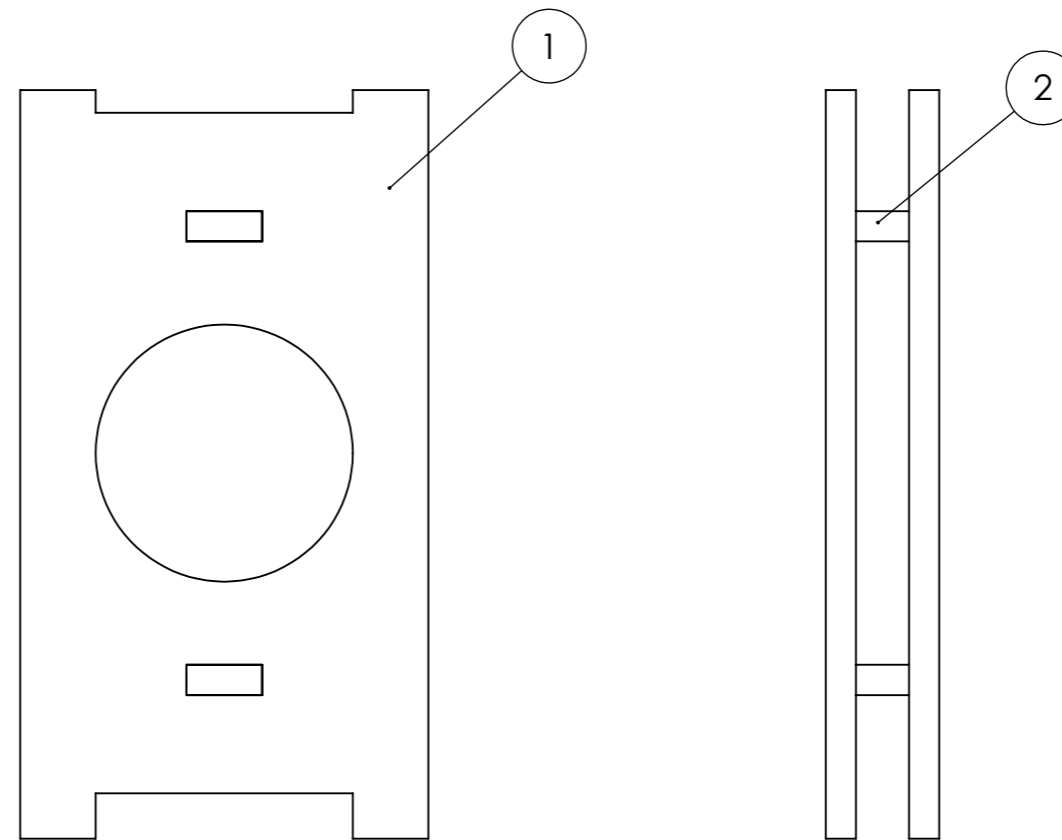
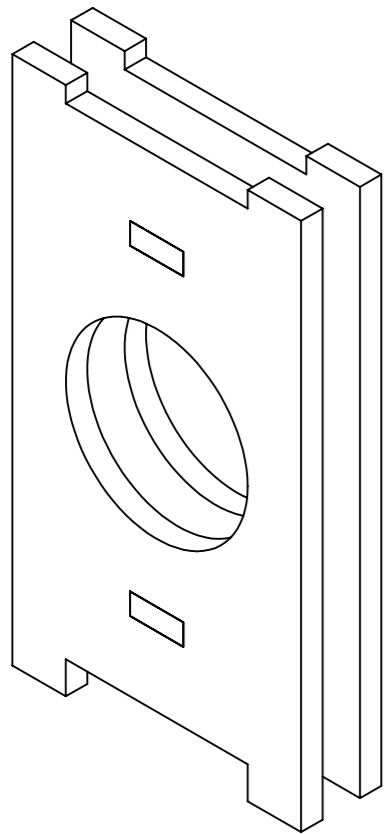
4 × SLOT GROUPS EQUALLY SPACED AT 90° ON Ø300 PCD
 EACH GROUP COMPRISES 2 MIRRORED PAIRS OF SLOTS
 EACH SLOT: 4 × 10 THRU
 SLOT PAIRS MIRRORED ABOUT RADIAL CENTRELIN



| | | | | | | | | | | |
|----------------------------------------|--------------|-----------------------------------------|--|-------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------|
| DRAWN BY Frederick Knight | | DATE OF ISSUE 5/2/26 | | TOLERANCE UNLESS OTHERWISE STATED | | SURFACE TEXTURE | | University of Southampton School of Engineering <small>THE INFORMATION HEREIN CANNOT BE COPIED OR DISCLOSED, EXCEPT BY WRITTEN AGREEMENT WITH THE UNIVERSITY OF SOUTHAMPTON.</small> | | |
| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | | | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | TITLE Base Plate | | | | | | |
| A3 | DO NOT SCALE | | | SCALE 1:2 | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | SHEET NUMBER 1 | No. OFF 1 | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | PART NUMBER 1 | REVISION A |

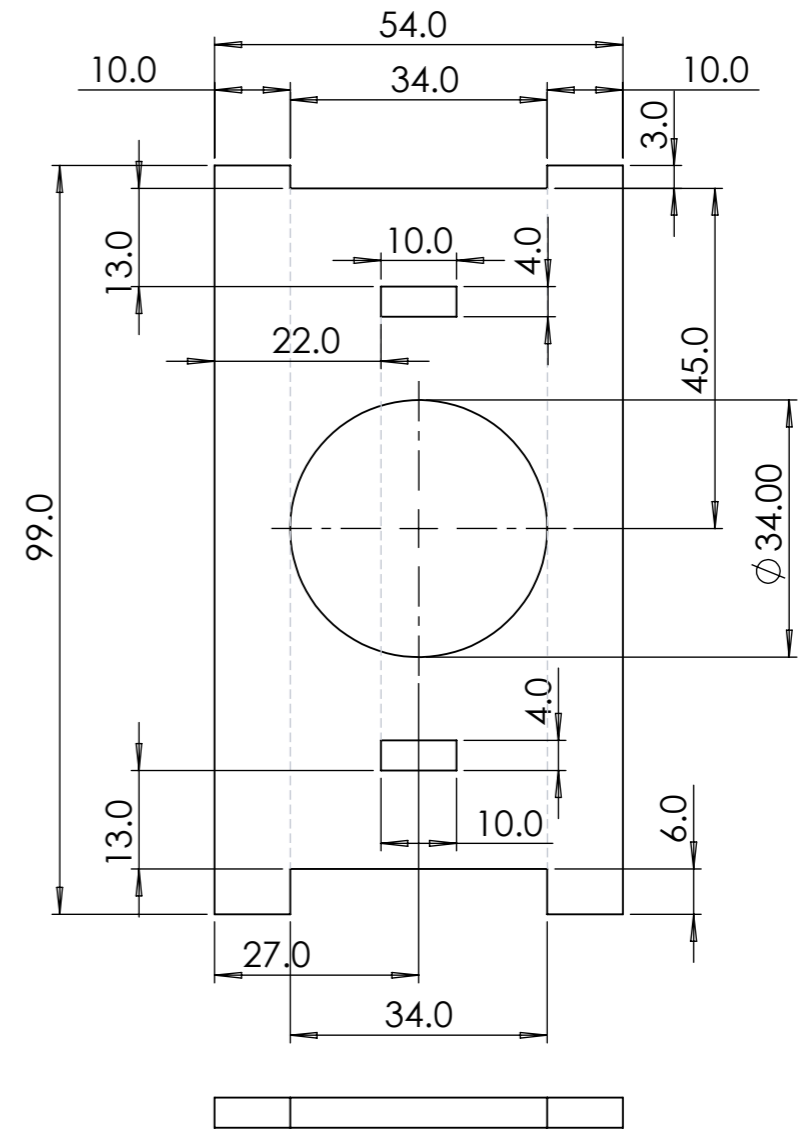
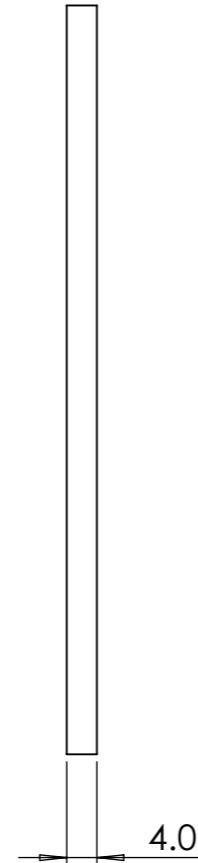
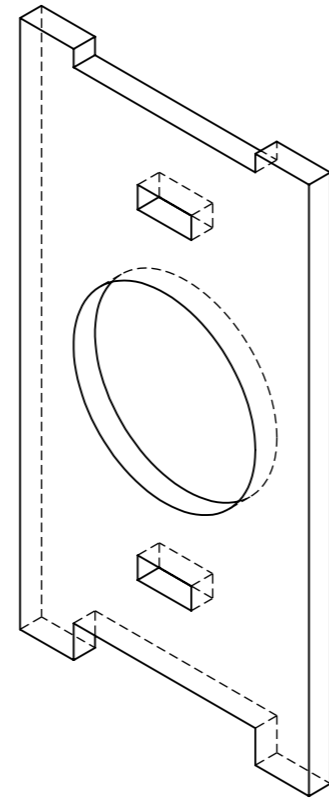
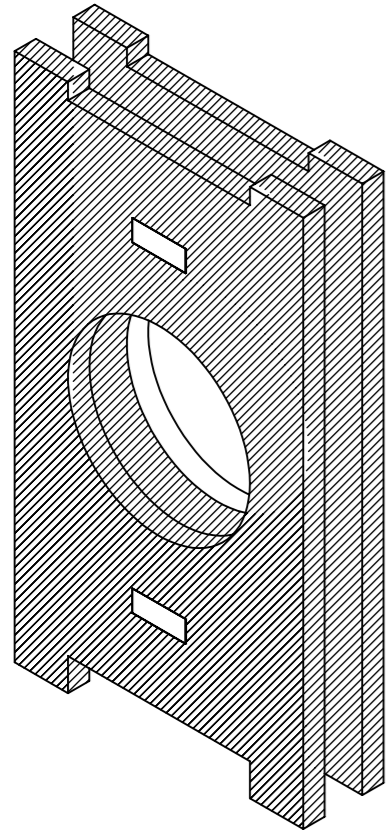


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| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Cube-Sat Ducts | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:2 | | SHEET NUMBER 1 | | No. OFF 1 | |
| A3 DO NOT SCALE | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER 2 | | REVISION A | |

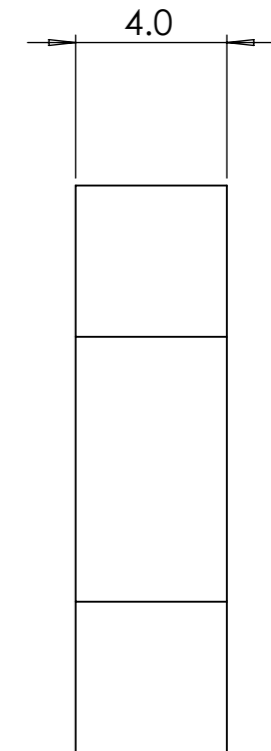
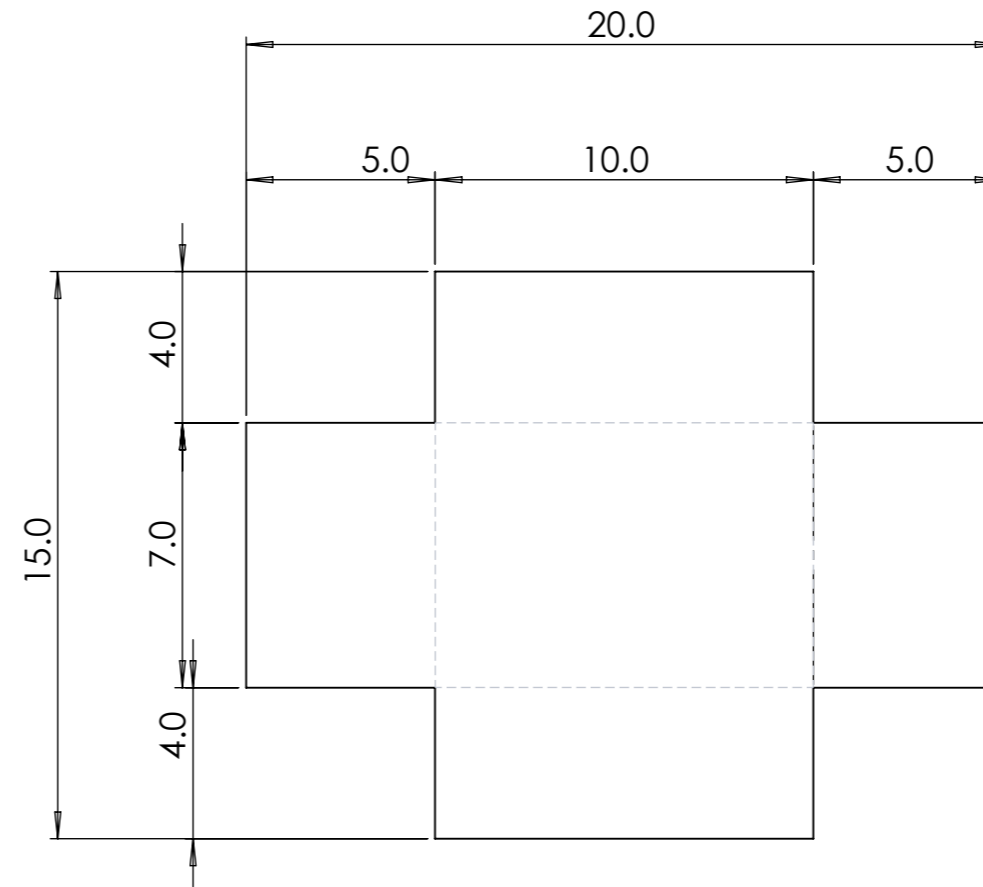
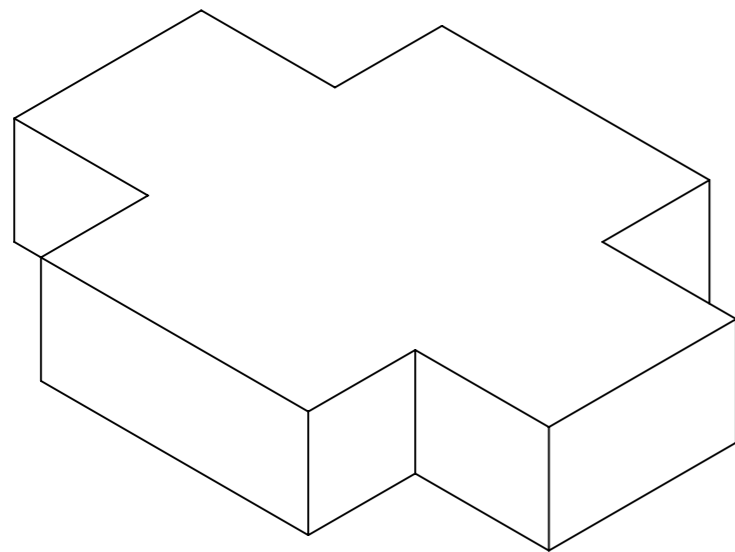
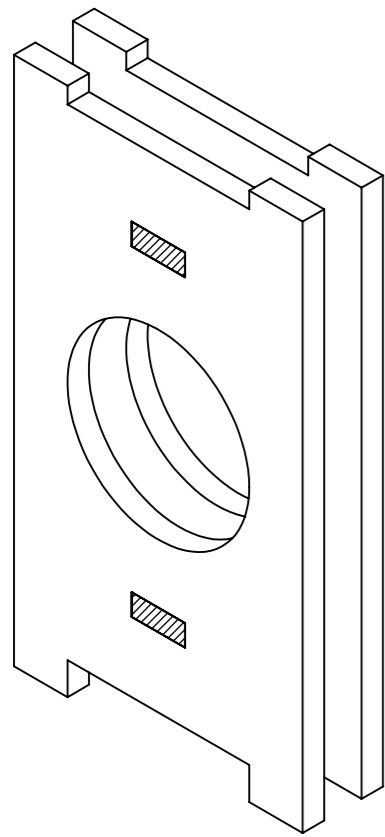


| Assembly Table | | | | |
|----------------|-------------|--------------------------------------|----------|---------------------------------------------------------------------------------------|
| Item | Part Number | Description | Quantity | Remarks |
| 1 | 3.1 | Thruster holder front and back plate | 8 | To be connected to part 4 using PVA adhesive, ensuring full mating surface is covered |
| 2 | 3.2 | Thruster holder joining pieces | 8 | |

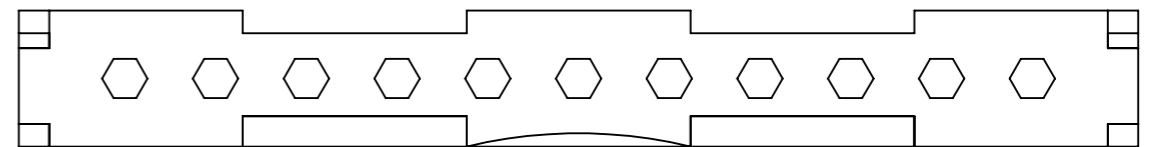
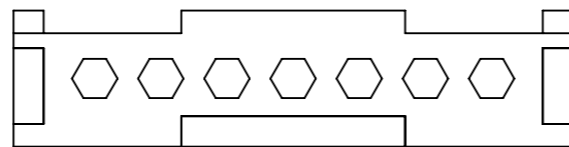
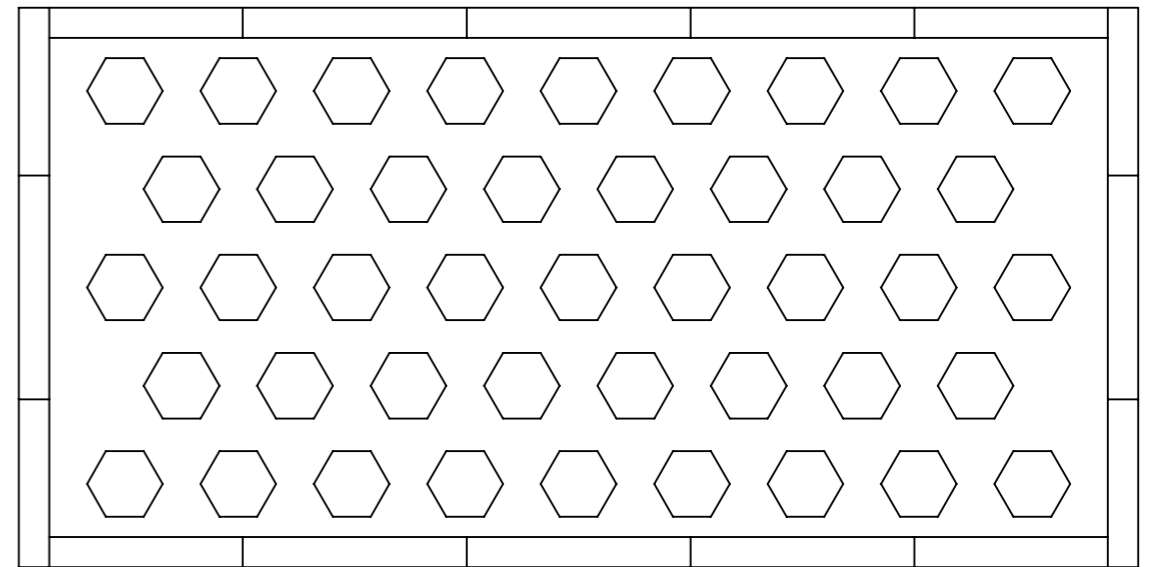
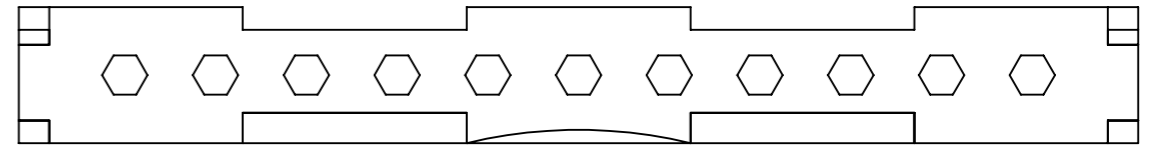
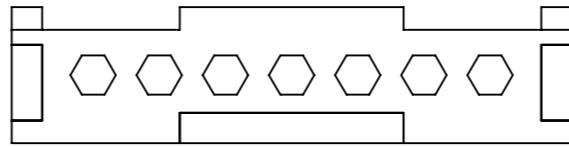
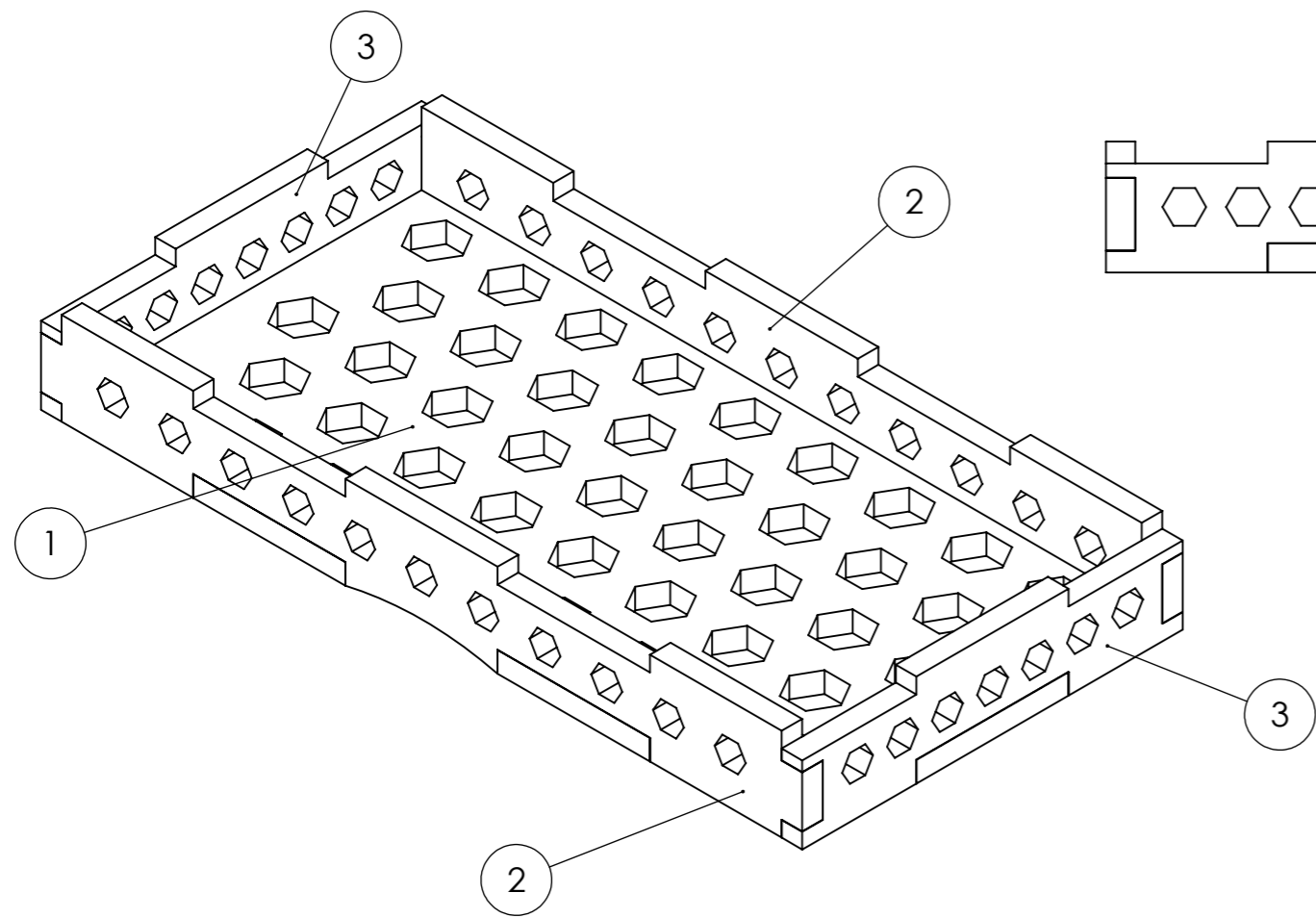
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| DRAWN BY Frederick Knight | | DATE OF ISSUE 3.5.2026 | | TOLERANCE UNLESS OTHERWISE STATED | | SURFACE TEXTURE | | University of Southampton School of Engineering <small>THE INFORMATION HEREIN CANNOT BE COPIED OR DISCLOSED, EXCEPT BY WRITTEN AGREEMENT WITH THE UNIVERSITY OF SOUTHAMPTON.</small> | |
| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Thruster Holder-Assembly | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:1 | | SHEET NUMBER 1 | | No. OFF 4 | |
| DO NOT SCALE | | | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER 3 | |
| | | | | | | | | REVISION A | |



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| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Thruster Holder-Front Plate | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:1 | | SHEET NUMBER 2 | | No. OFF 8 | |
| A3 | | DO NOT SCALE | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER 3.1 | |
| | | | | | | | | REVISION A | |

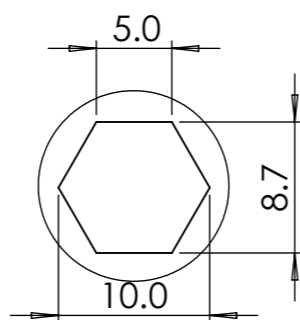
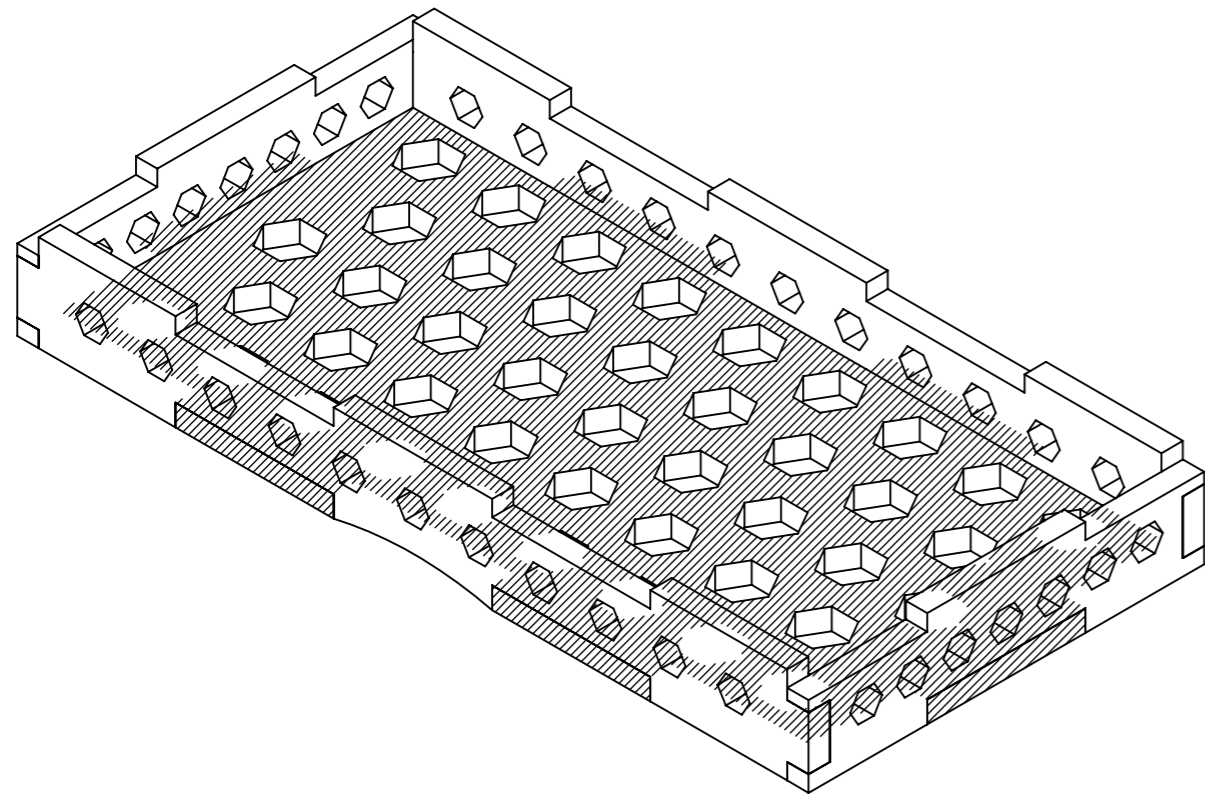


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| DRAWN BY Frederick Knight | | DATE OF ISSUE 3.5.2026 | | TOLERANCE UNLESS OTHERWISE STATED | | SURFACE TEXTURE | | University of Southampton School of Engineering <small>THE INFORMATION HEREIN CANNOT BE COPIED OR DISCLOSED, EXCEPT BY WRITTEN AGREEMENT WITH THE UNIVERSITY OF SOUTHAMPTON.</small> | |
| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | TITLE Thruster Holder-Connecting Piece | | | | | |
| A3 | DO NOT SCALE | | SCALE 5:1 | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | SHEET NUMBER 3 | No. OFF 8 | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | PART NUMBER 3.2 | REVISION A |



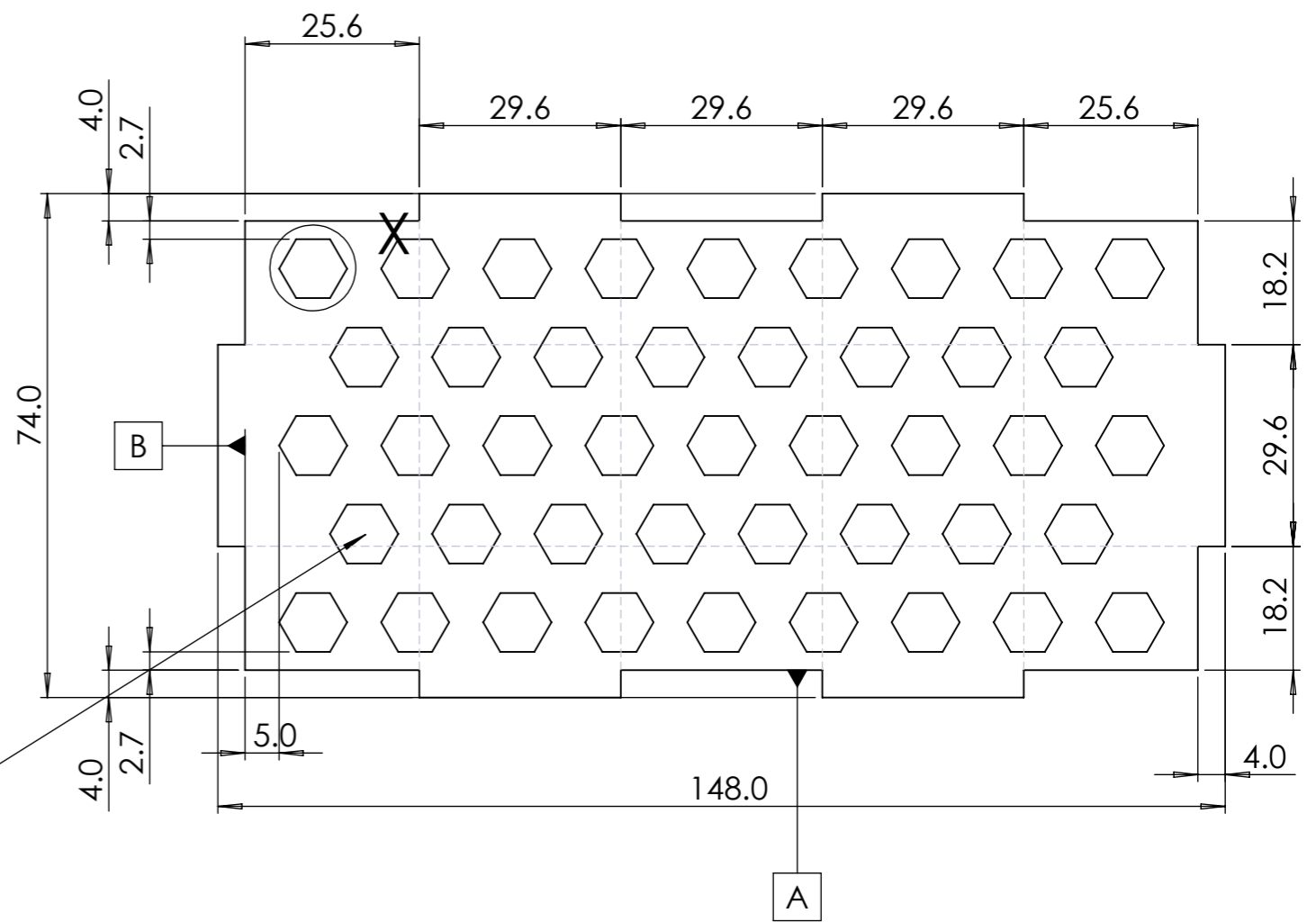
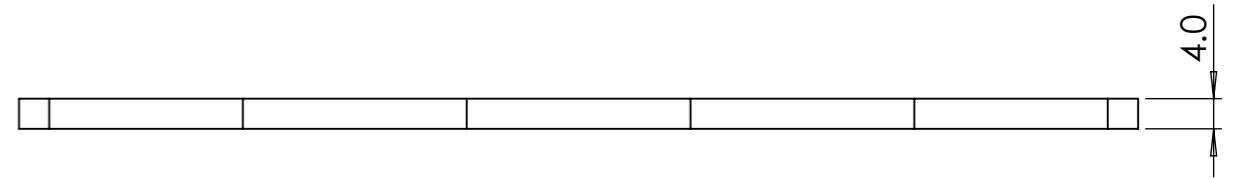
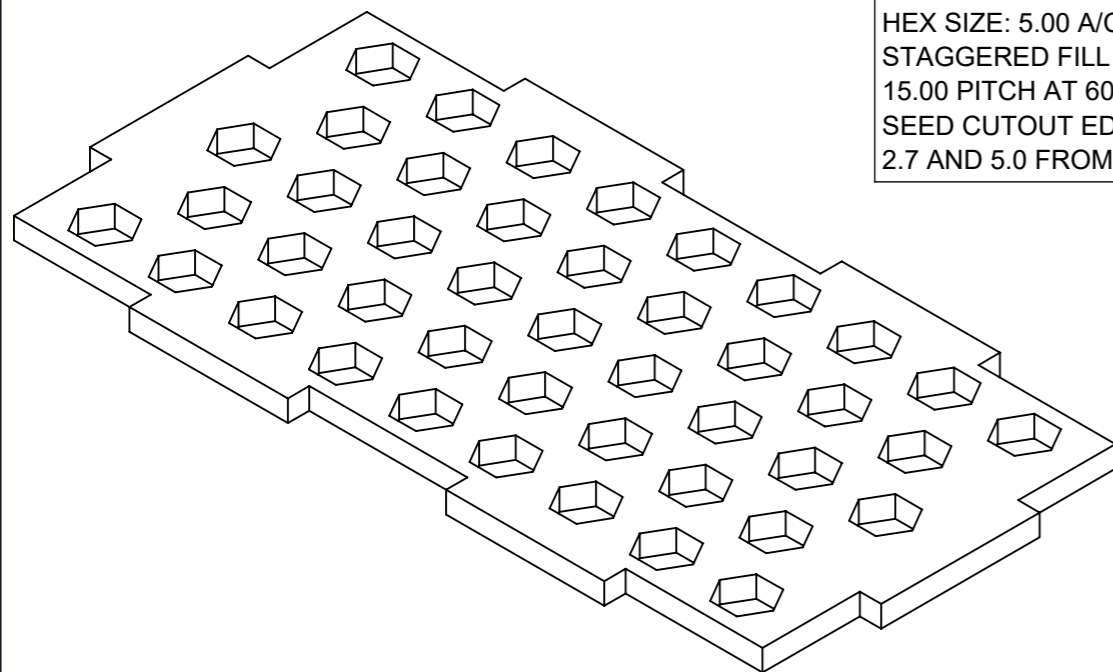
| ITEM NO. | PART NUMBER | DESCRIPTION | Quantity |
|----------|-------------|---------------------------|----------|
| 1 | 5.1 | Battery holder base plate | 1 |
| 2 | 5.3 | Battery holder side | 2 |
| 3 | 5.2 | Battery holder front/back | 2 |

| | | | | | | | | | | |
|----------------------------------------|--------------|-----------------------------------------|---------------------|-----------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--|
| DRAWN BY Frederick Knight | | DATE OF ISSUE 3.5.2026 | | TOLERANCE UNLESS OTHERWISE STATED X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | SURFACE TEXTURE √Ra ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | University of Southampton School of Engineering <small>THE INFORMATION HEREIN CANNOT BE COPIED OR DISCLOSED, EXCEPT BY WRITTEN AGREEMENT WITH THE UNIVERSITY OF SOUTHAMPTON.</small> | | |
| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | | | | | |
| PROJECT Cube-Sat | | APPROVED BY | | MATERIAL Birch Plywood | | FINISH Rough | | TITLE Battery Holder-Assembly | | |
| A3 | DO NOT SCALE | | SCALE 1:1 | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | SHEET NUMBER 1 | No. OFF 1 | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | PART NUMBER 5 | REVISION B | |

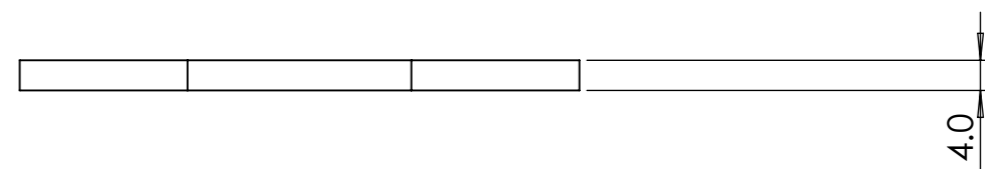
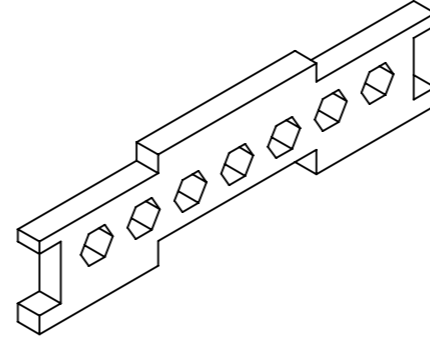
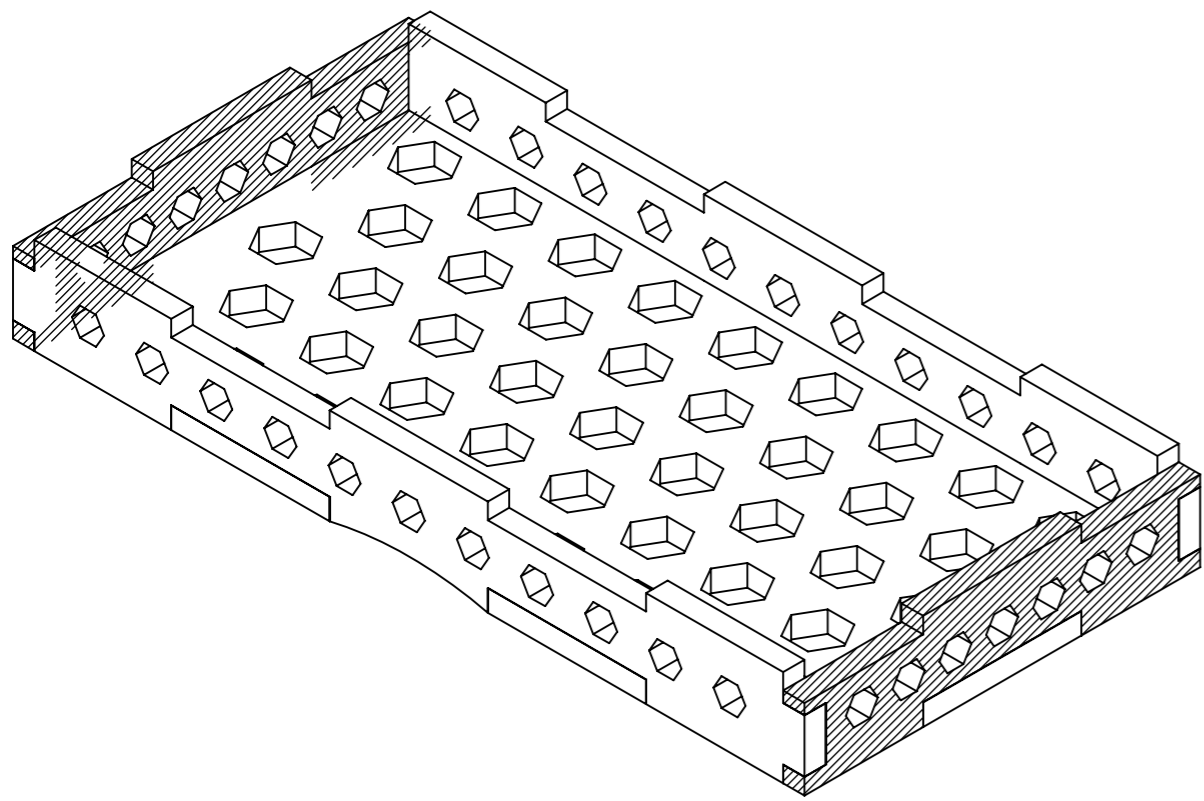


DETAIL X
SCALE 2 : 1

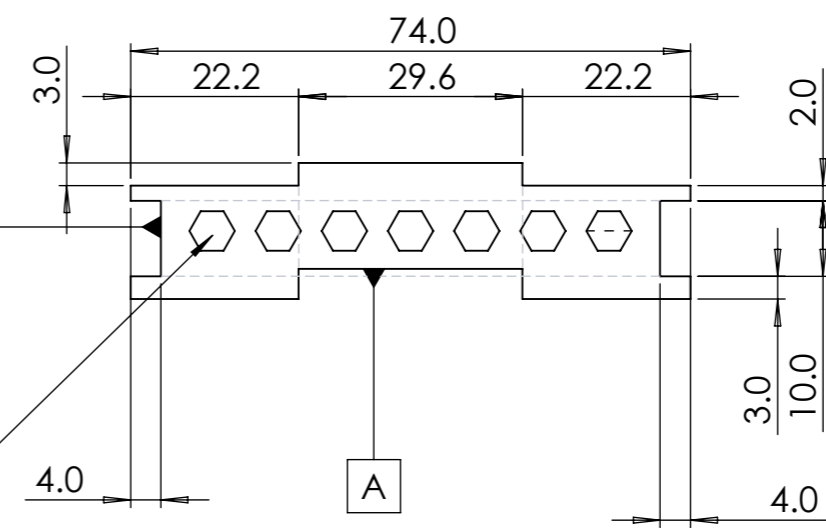
Pattern Note
 43 OFF REGULAR HEXAGONAL THROUGH CUTOUTS.
 HEX SIZE: 5.00 A/C (4.33 A/F REF).
 STAGGERED FILL PATTERN:
 15.00 PITCH AT 60° TO DATUM A.
 SEED CUTOUT EDGE TO BE LOCATED
 2.7 AND 5.0 FROM DATUMS A AND B.



| | | | | | | | | | |
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| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Battery-Holder Base Plate | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:1 | | SHEET NUMBER 2 | | No. OFF 1 | |
| DO NOT SCALE | | | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER 5.1 | |
| | | | | | | | | REVISION B | |



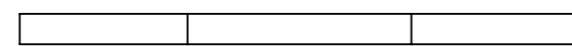
B



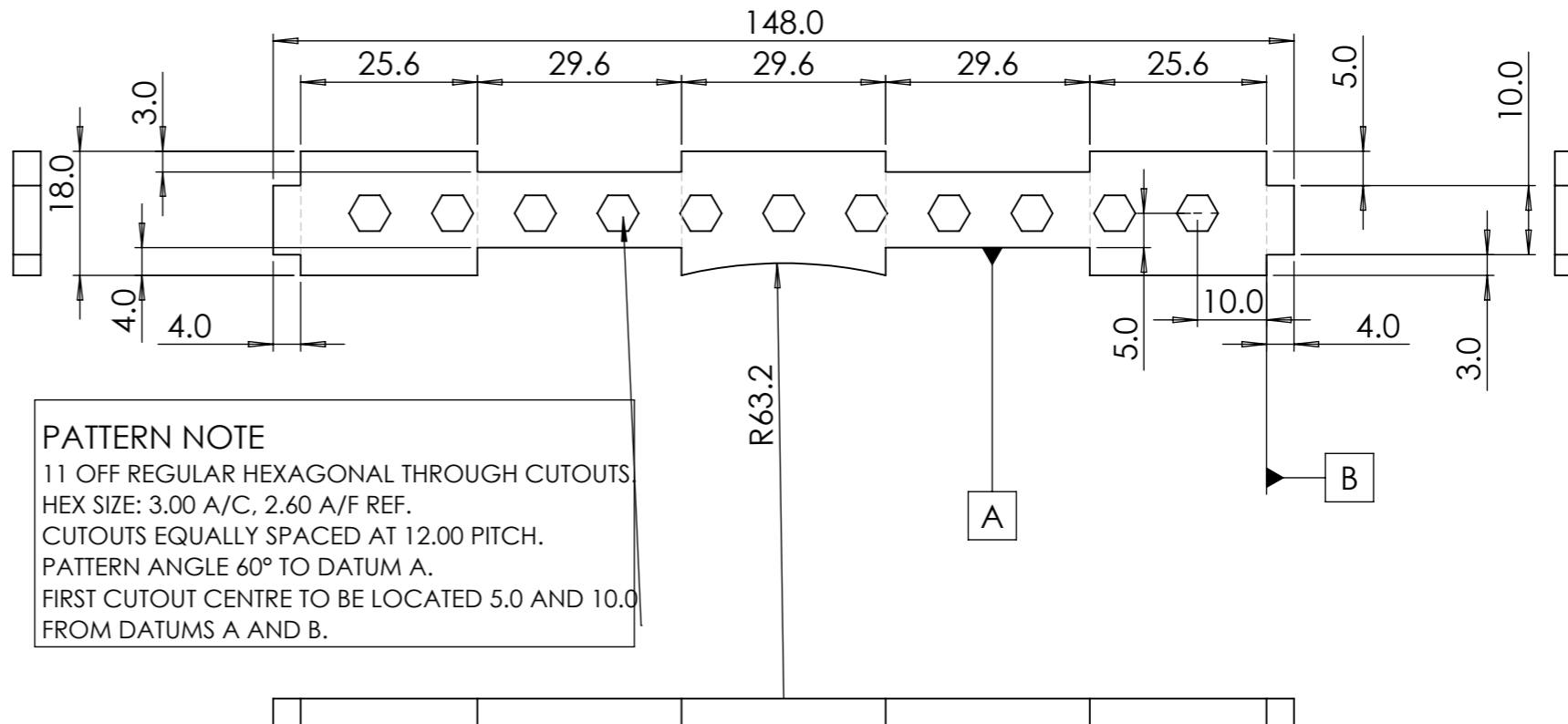
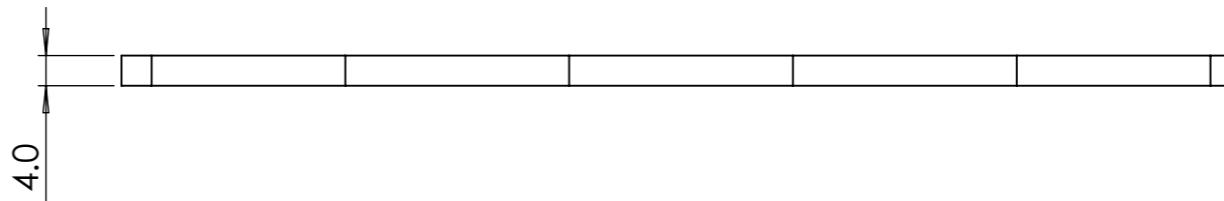
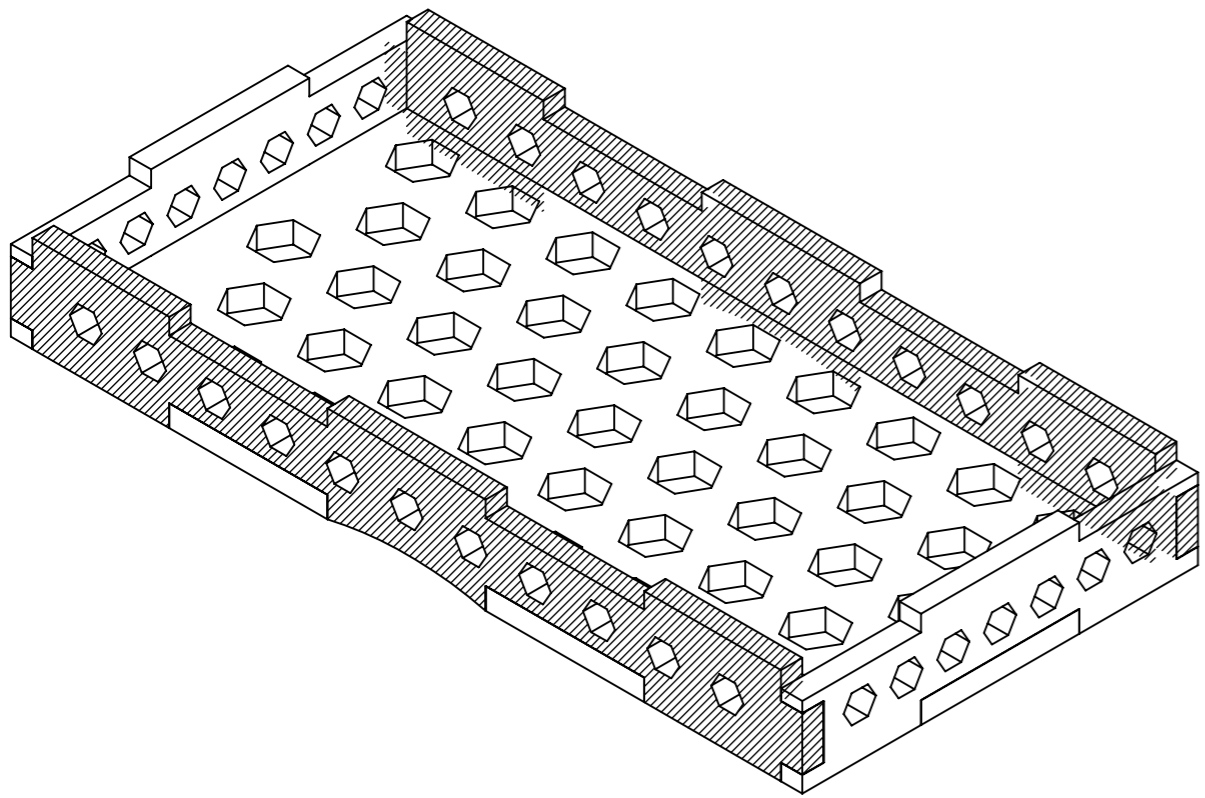
A



Pattern Note
 7 OFF REGULAR HEXAGONAL THROUGH CUTOUTS.
 HEX SIZE: 3.00 A/C (2.60 A/F REF).
 LINEAR FILL PATTERN:
 8.75 PITCH AT 60° TO DATUM A.
 SEED CUTOUT CENTRE TO BE LOCATED
 5.0 AND 6.8 FROM DATUMS A AND B.

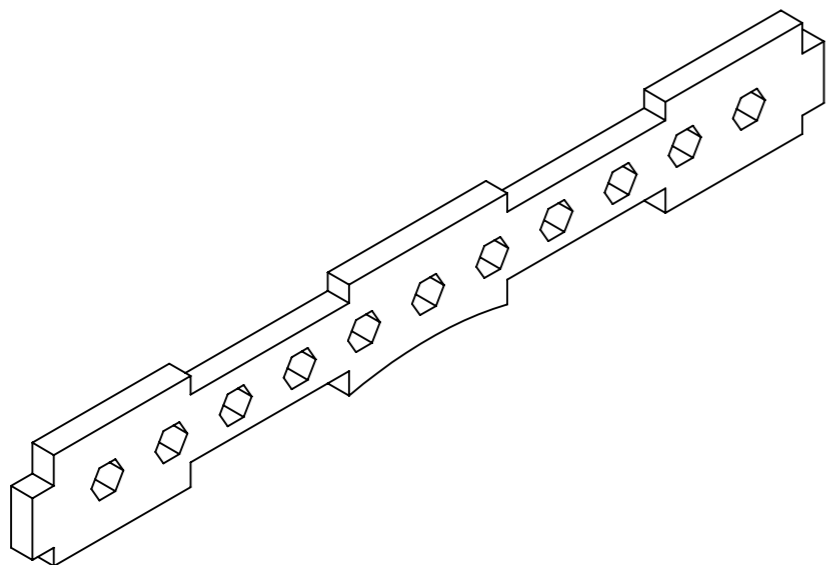


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| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Battery-Holder Front/Back | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:1 | | SHEET NUMBER 3 | | No. OFF 2 | |
| A3 | | DO NOT SCALE | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER 5.2 | |
| | | | | | | | | REVISION B | |

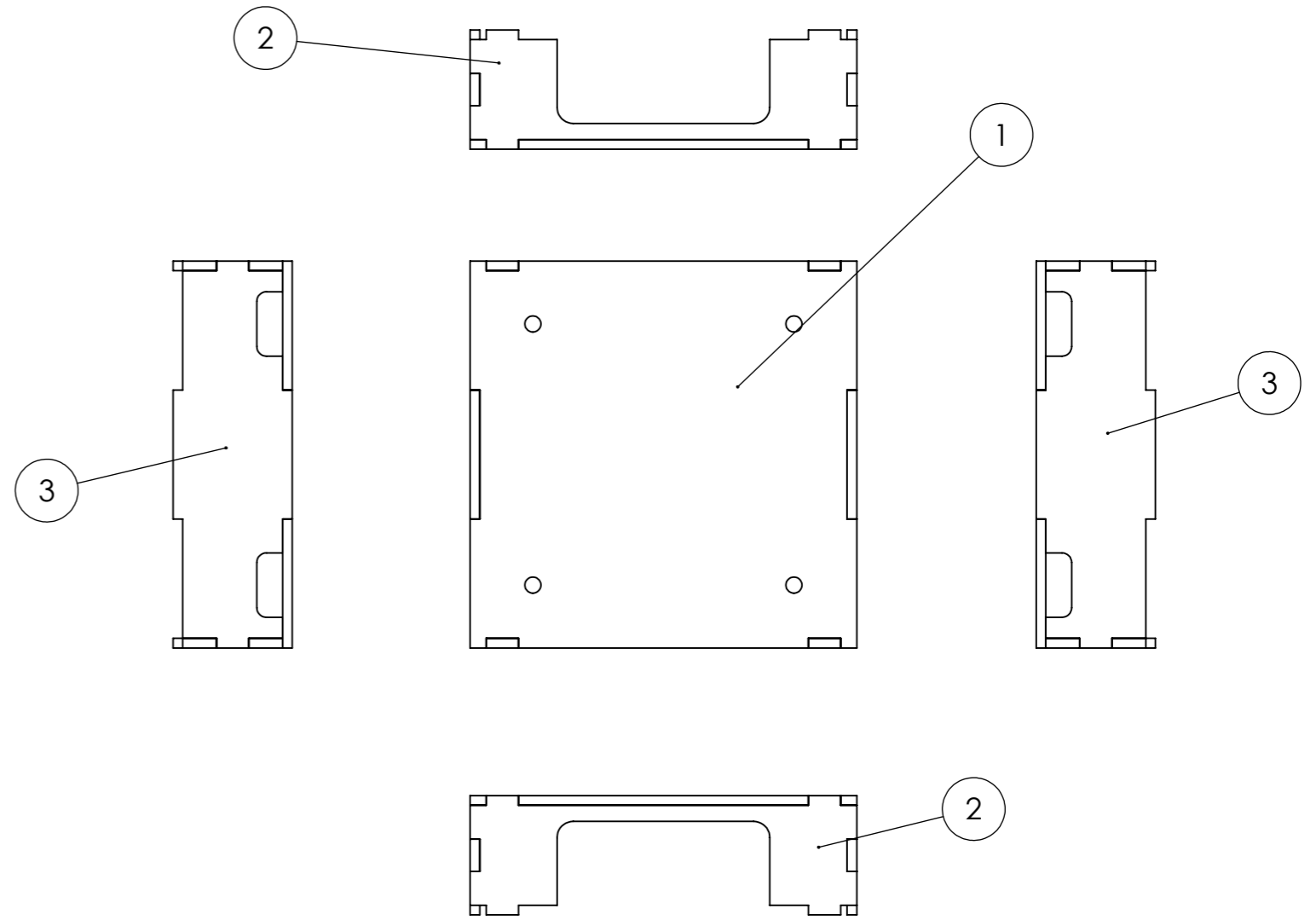
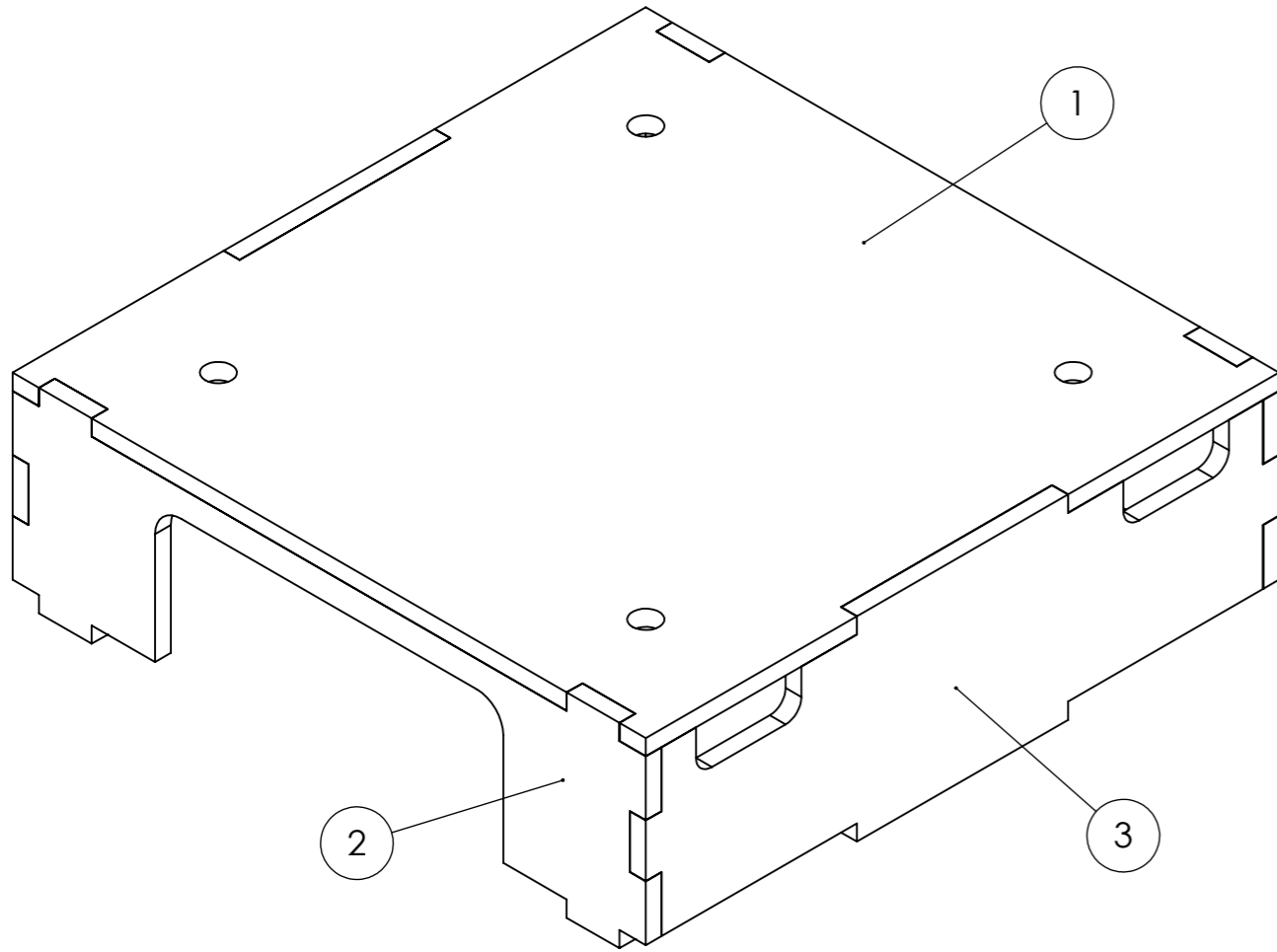


PATTERN NOTE

11 OFF REGULAR HEXAGONAL THROUGH CUTOUTS
 HEX SIZE: 3.00 A/C, 2.60 A/F REF.
 CUTOUTS EQUALLY SPACED AT 12.00 PITCH.
 PATTERN ANGLE 60° TO DATUM A.
 FIRST CUTOUT CENTRE TO BE LOCATED 5.0 AND 10.0
 FROM DATUMS A AND B.

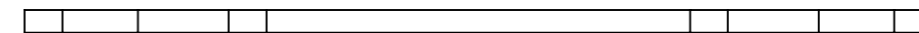
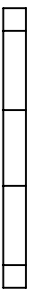
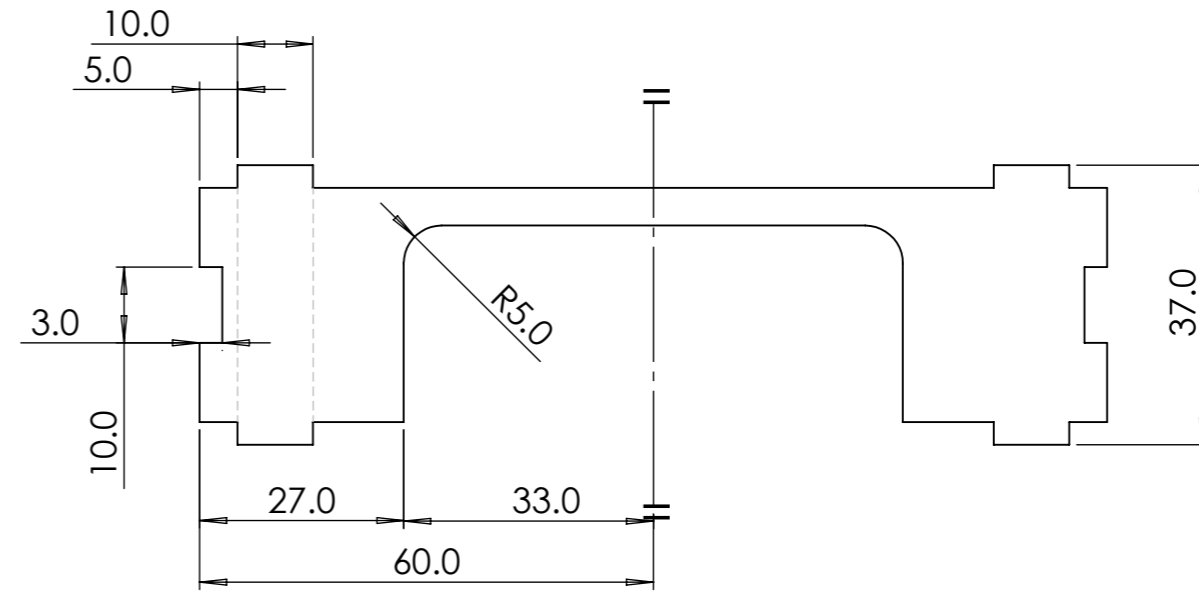
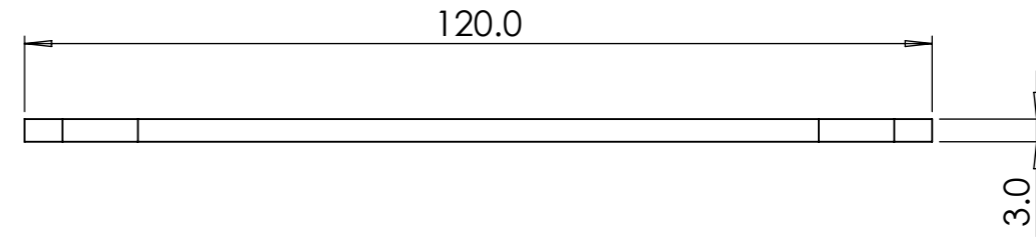
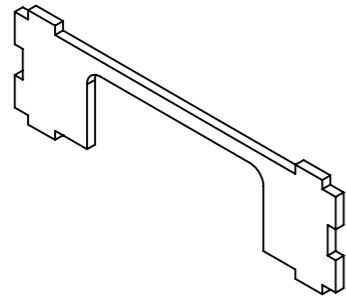
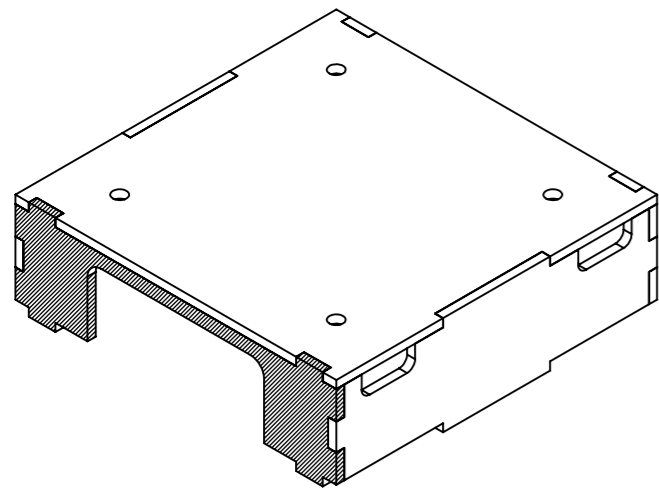


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|----------------------------------------|--|-----------------------------------------|--|-------------------------------------------------------------------------------|--|---------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| DRAWN BY Frederick Knight | | DATE OF ISSUE 3.5.2026 | | TOLERANCE UNLESS OTHERWISE STATED | | SURFACE TEXTURE | | University of Southampton School of Engineering <small>THE INFORMATION HEREIN CANNOT BE COPIED OR DISCLOSED, EXCEPT BY WRITTEN AGREEMENT WITH THE UNIVERSITY OF SOUTHAMPTON.</small> | |
| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Battery-Holder Side | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:1 | | SHEET NUMBER 4 | | No. OFF 2 | |
| A3 DO NOT SCALE | | | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER 5.3 | |
| | | | | | | | | REVISION B | |

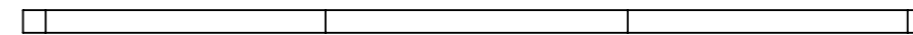
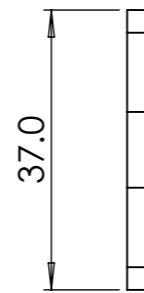
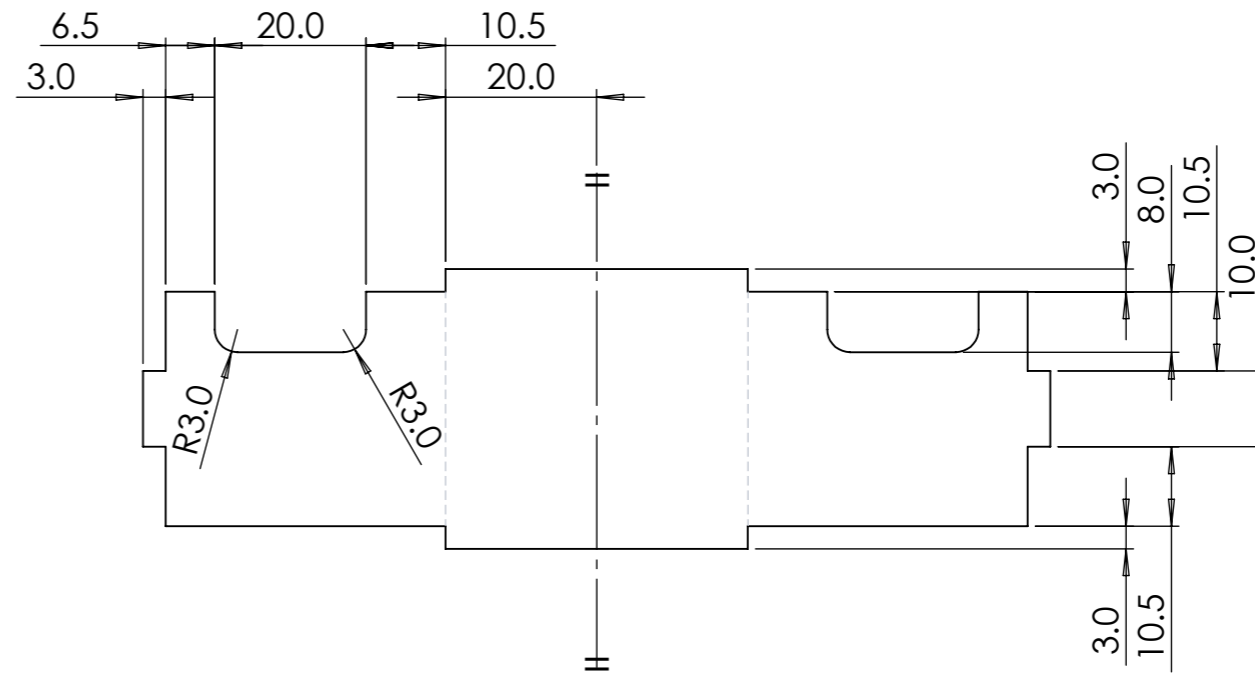
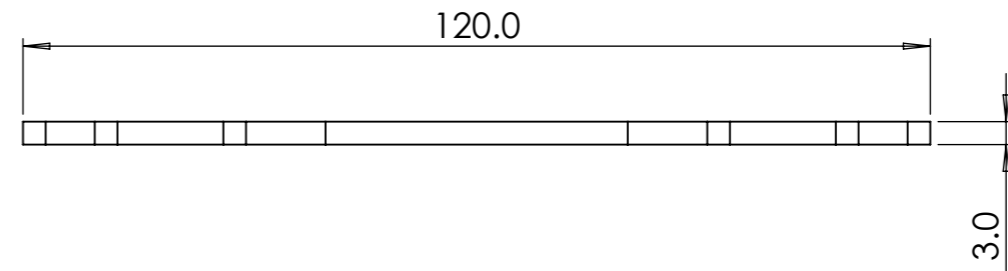
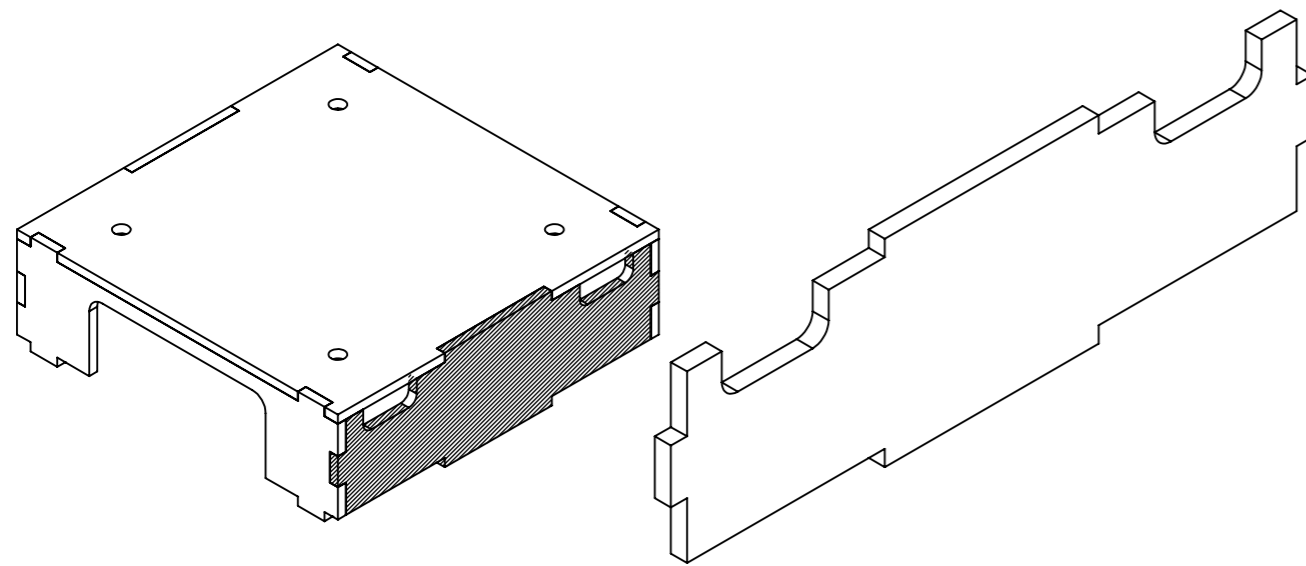


| Item No. | Part Number | Description | Quantity |
|----------|-------------|-------------------------|----------|
| 1 | 6.1 | Cube-Support Top Plate | 1 |
| 2 | 6.2 | Cube-Support Front/Back | 2 |
| 3 | 6.3 | Cube-Support Side | 2 |

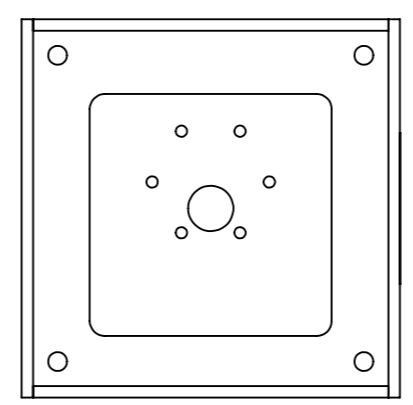
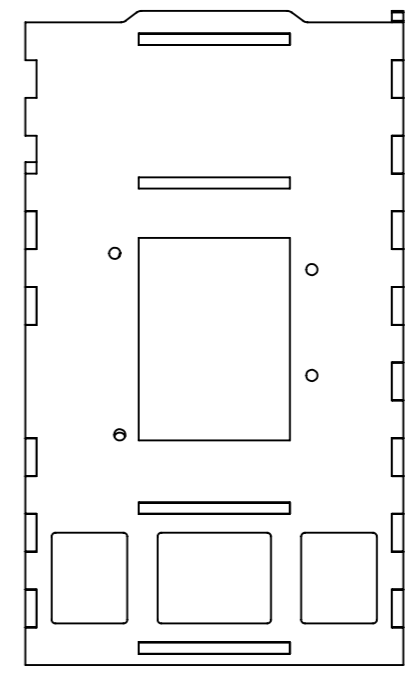
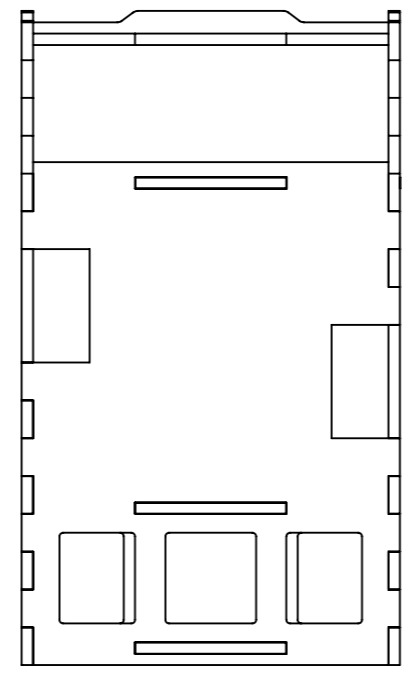
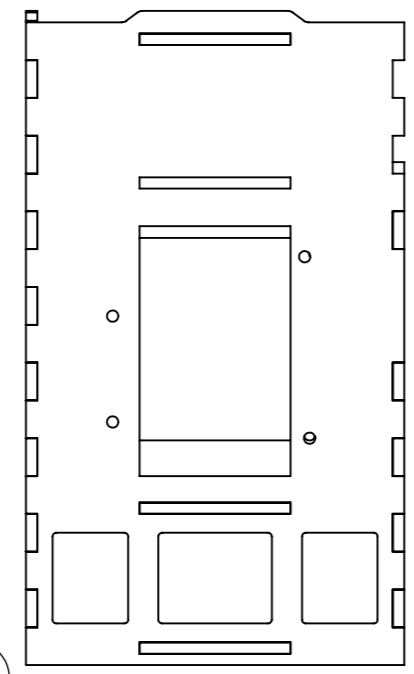
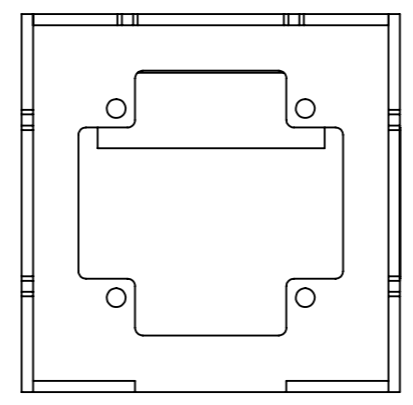
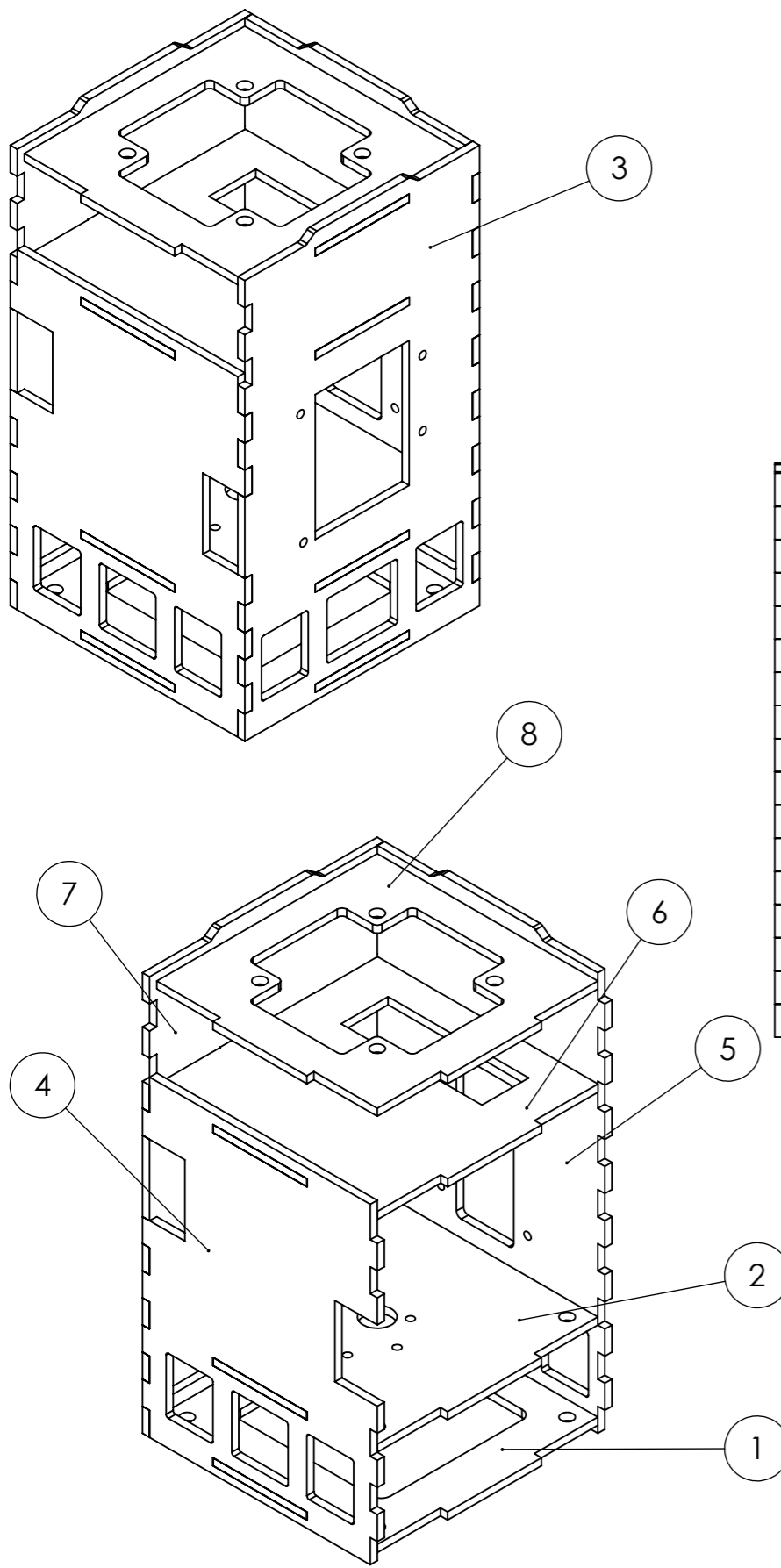
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|----------------------------------------|--------------|-----------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| DRAWN BY Frederick Knight | | DATE OF ISSUE 3.5.2026 | | TOLERANCE UNLESS OTHERWISE STATED LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | SURFACE TEXTURE \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | University of Southampton School of Engineering <small>THE INFORMATION HEREIN CANNOT BE COPIED OR DISCLOSED, EXCEPT BY WRITTEN AGREEMENT WITH THE UNIVERSITY OF SOUTHAMPTON.</small> | |
| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | APPROVED BY | | | |
| PROJECT Cube-Sat | | MATERIAL Birch Plywood | | FINISH Rough | | TITLE Cube-Support Assembly | | | |
| A3 | DO NOT SCALE | | SCALE 1:2 | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | SHEET NUMBER 1 | No. OFF 1 | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | PART NUMBER 6 | REVISION A |



| | | | | | | | | | | |
|---------------------------------|--------------|-----------------------------------------|--|-------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|
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| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | | | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | TITLE Cube-Support Front/Back | | | | | | |
| A3 | DO NOT SCALE | | | SCALE 1:2 | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | SHEET NUMBER 3 | No. OFF 2 | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | PART NUMBER 6.2 | REVISION A |

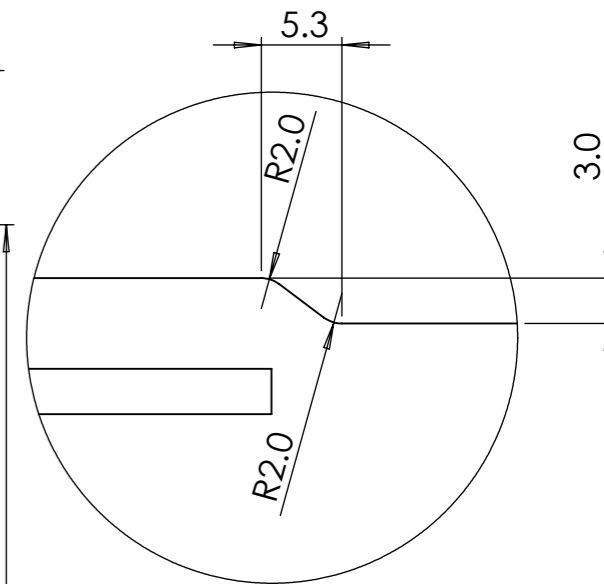
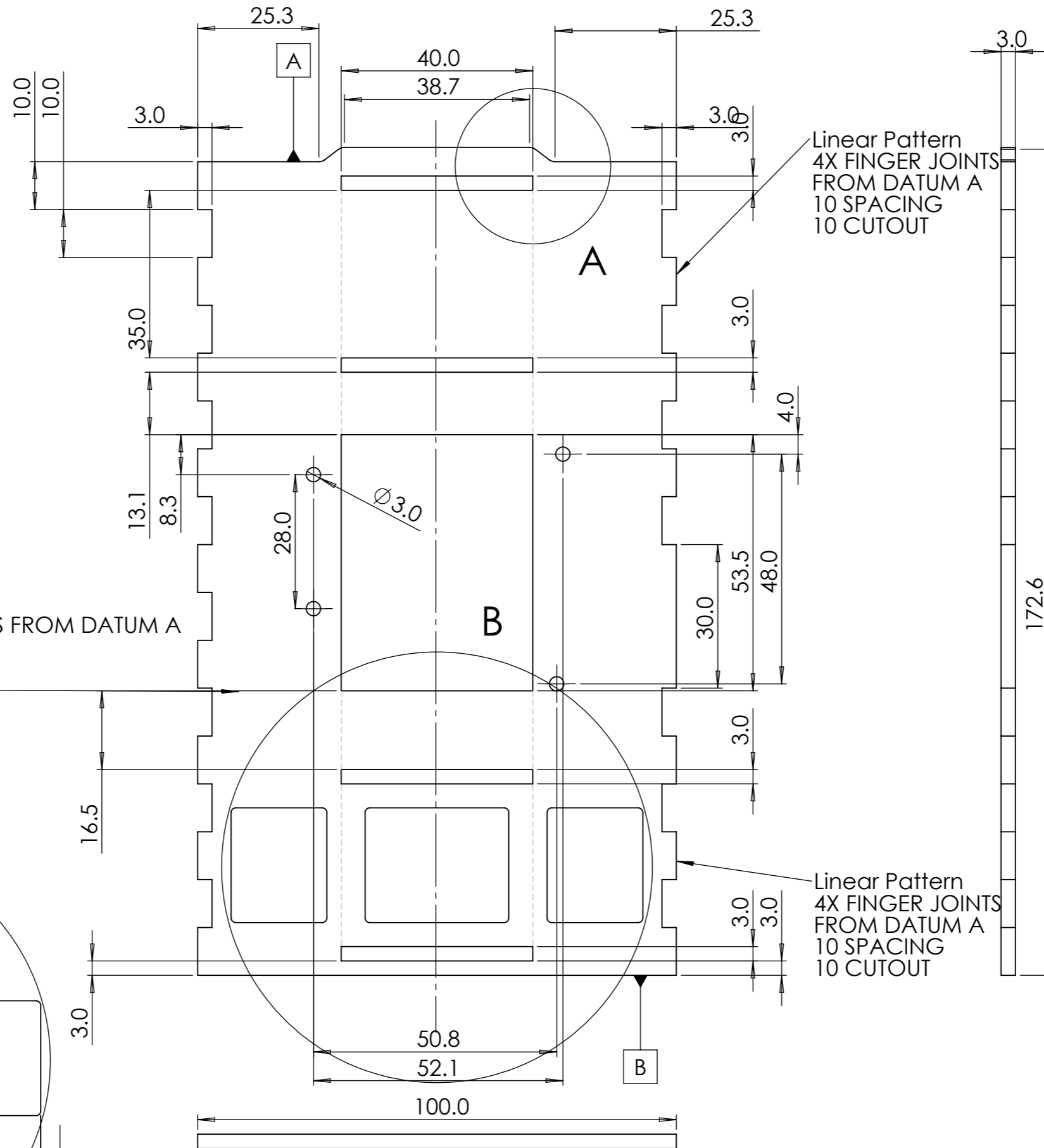
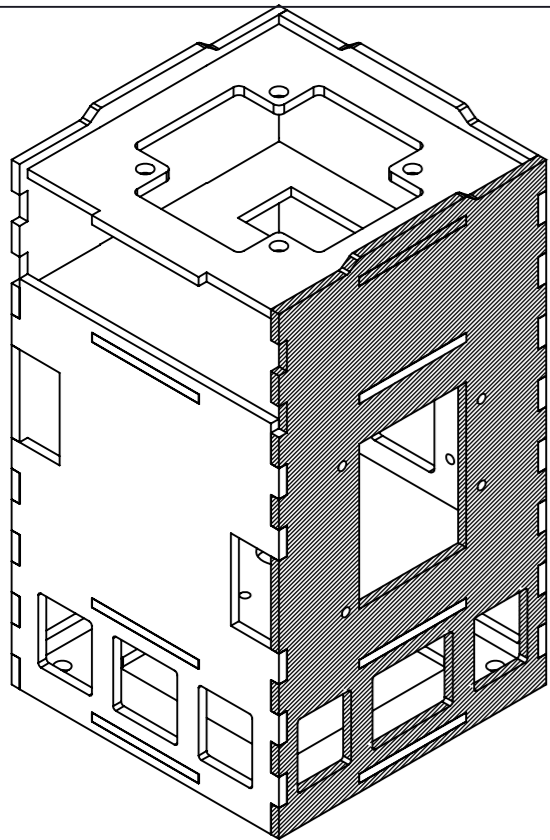


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|----------------------------------------|--------------|-----------------------------------------|--|-------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------|
| DRAWN BY Frederick Knight | | DATE OF ISSUE 3.5.2026 | | TOLERANCE UNLESS OTHERWISE STATED | | SURFACE TEXTURE | | University of Southampton School of Engineering <small>THE INFORMATION HEREIN CANNOT BE COPIED OR DISCLOSED, EXCEPT BY WRITTEN AGREEMENT WITH THE UNIVERSITY OF SOUTHAMPTON.</small> | | |
| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | | | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | TITLE Cube-Support Side | | | | | | |
| A3 | DO NOT SCALE | | | SCALE 1:1 | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | SHEET NUMBER 4 | No. OFF 2 | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | PART NUMBER 6.3 | REVISION A |

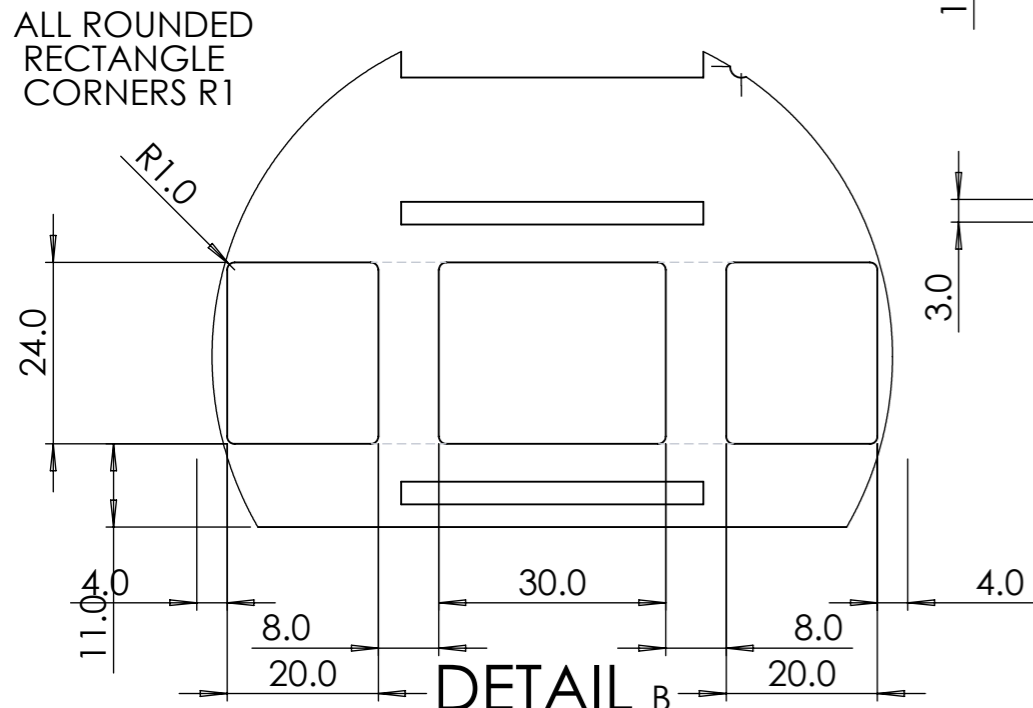


| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-------------|--------------------|------|
| 1 | 7.6 | Cube-Base Plate | 1 |
| 2 | 7.7 | Cube-Level 1 Plate | 1 |
| 3 | 7.1 | Cube-Left Face | 1 |
| 4 | 7.2 | Cube-Front Plate | 1 |
| 5 | 7.3 | Cube-Back Plate | 1 |
| 6 | 7.8 | Cube-Level 2 | 1 |
| 7 | 7.4 | Cube-Right Face | 1 |
| 8 | 7.5 | Cube-Top Face | 1 |

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|-------------------------------------|--|-----------------------------------------|--|-------------------------------------------------------------------------------|--|---------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
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| DESIGNED BY Will Jordan | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Cube Sub-Assembly | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:1 | | SHEET NUMBER 1 | | No. OFF 1 | |
| A3 DO NOT SCALE | | | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER 7 | |
| | | | | | | | | REVISION C | |

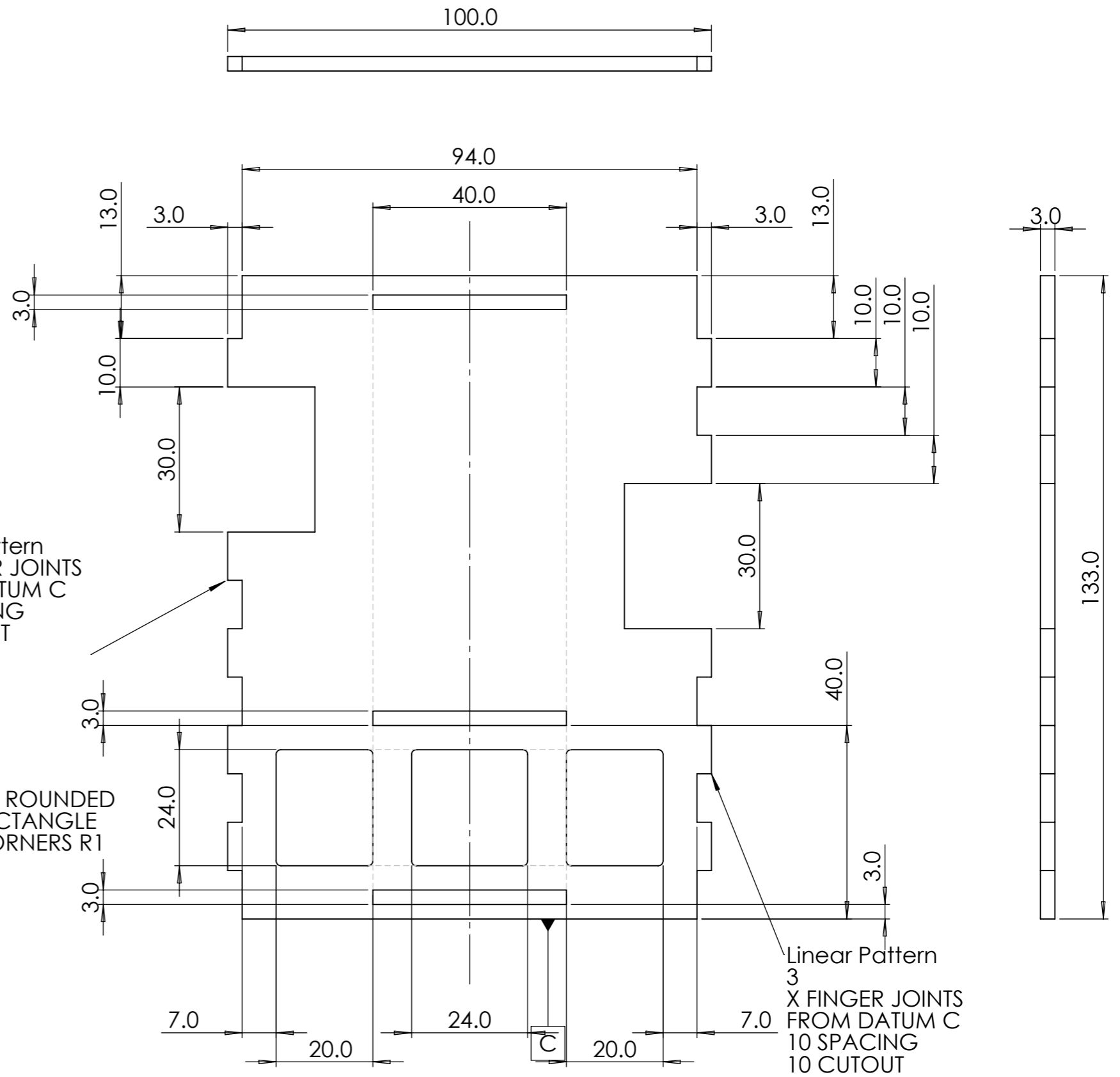
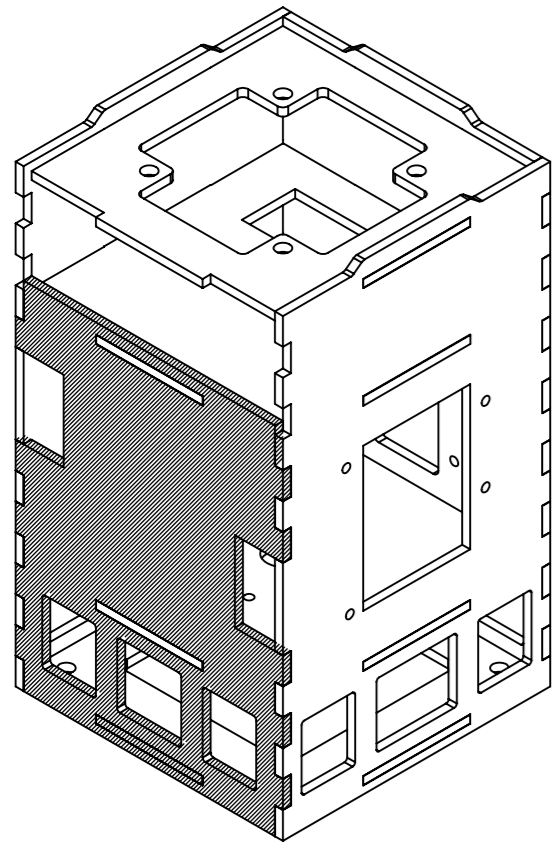


DETAIL A
SCALE 2:1



DETAIL B
SCALE 1:1

| | | | | | | | | | |
|-------------------------------------|--|------------------------------------------------------------------|--|-------------------------------------------------------------------------------|--|---------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
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| DESIGNED BY Will Jordan | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Cube-Left Face | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:1 | | SHEET NUMBER 2 | | No. OFF 1 | |
| A3 DO NOT SCALE | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER 7.1 | | REVISION C | |

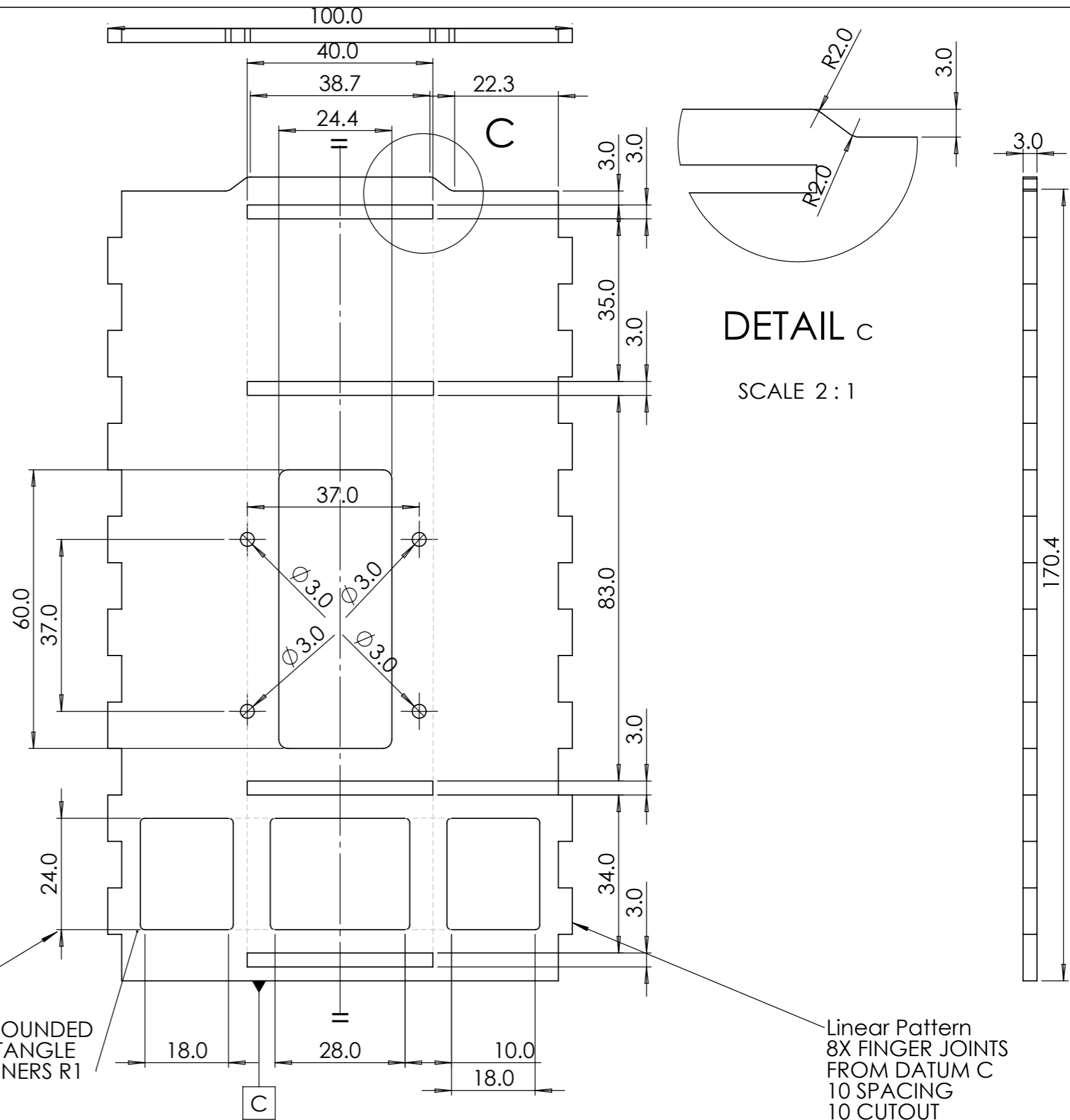
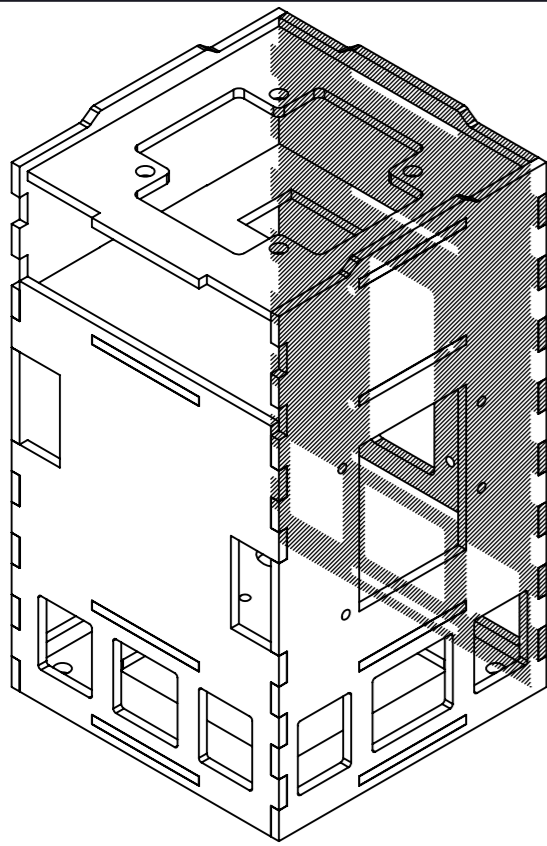


Linear Pattern
4X FINGER JOINTS
FROM DATUM C
10 SPACING
10 CUTOUT

ALL ROUNDED
RECTANGLE
CORNERS R1

Linear Pattern
3
X FINGER JOINTS
FROM DATUM C
10 SPACING
10 CUTOUT

| | | | | | | | | | |
|-------------------------------------|--|------------------------------------------------------------------|--|-------------------------------------------------------------------------------|--|---------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| DRAWN BY Frederick Knight | | DATE OF ISSUE 3.5.2026 | | TOLERANCE UNLESS OTHERWISE STATED | | SURFACE TEXTURE | | University of Southampton School of Engineering <small>THE INFORMATION HEREIN CANNOT BE COPIED OR DISCLOSED, EXCEPT BY WRITTEN AGREEMENT WITH THE UNIVERSITY OF SOUTHAMPTON.</small> | |
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| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Cube-Front Face | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:1 | | SHEET NUMBER 3 | | No. OFF 1 | |
| A3 DO NOT SCALE | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER 7.2 | | REVISION C | |

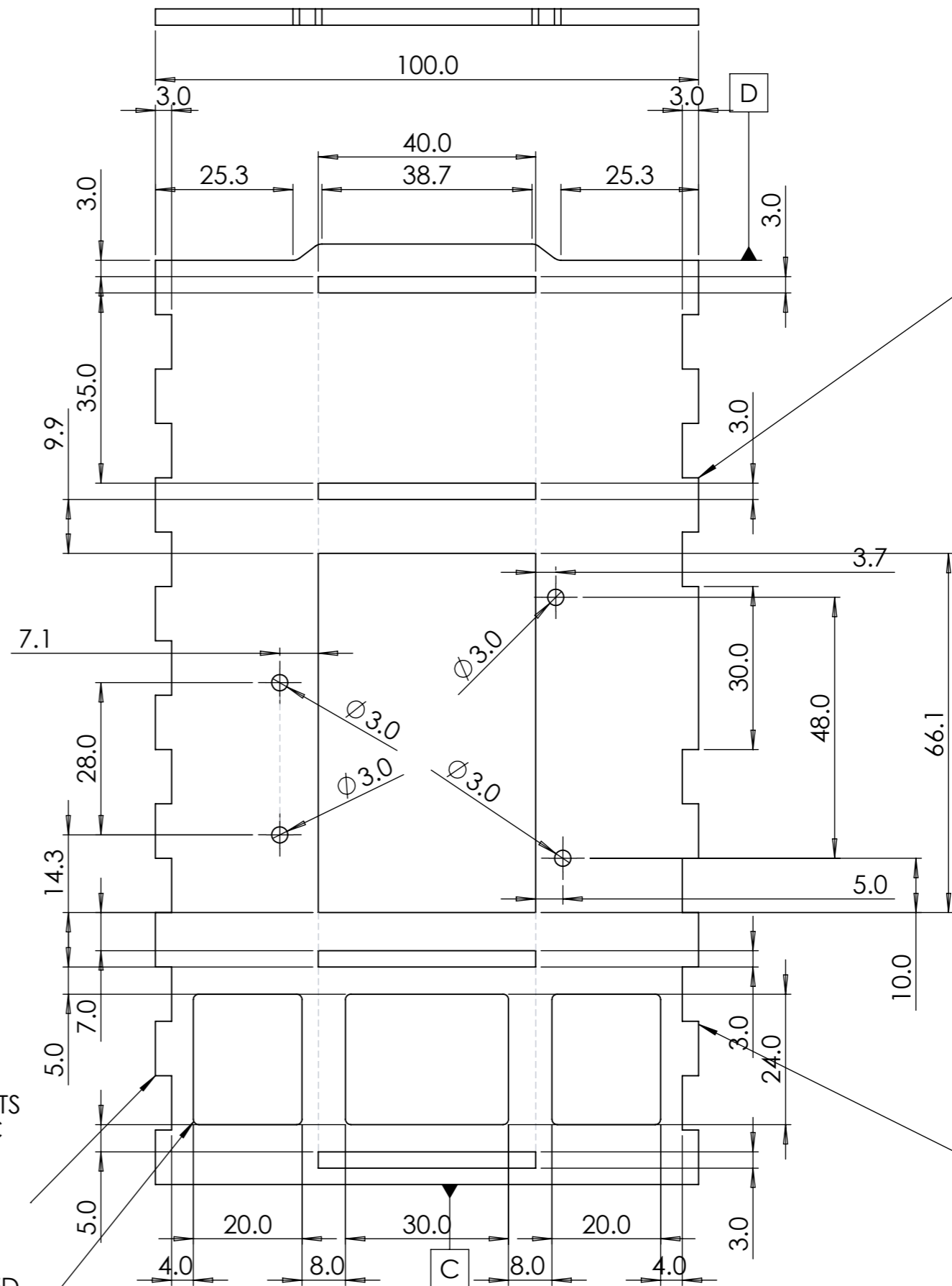
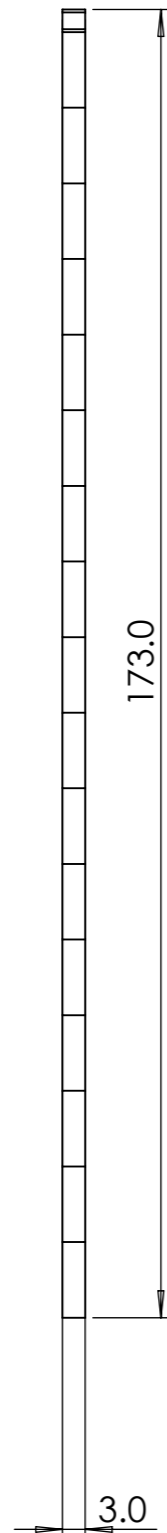
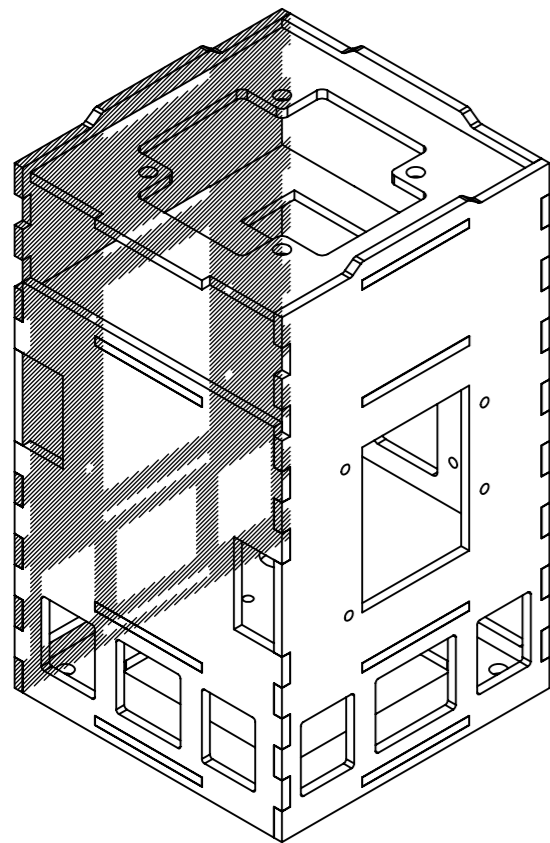


Linear Pattern
8X FINGER JOINTS
FROM DATUM C
10 SPACING
10 CUTOUT

ALL ROUNDED
RECTANGLE
CORNERS R1

Linear Pattern
8X FINGER JOINTS
FROM DATUM C
10 SPACING
10 CUTOUT

| | | | | | | | | | |
|------------------------------|--|-----------------------------------------|--|-------------------------------------------------------------------------------|--|---------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| DRAWN BY Frederick Knight | | DATE OF ISSUE 3.5.2026 | | TOLERANCE UNLESS OTHERWISE STATED | | SURFACE TEXTURE | | University of Southampton School of Engineering <small>THE INFORMATION HEREIN CANNOT BE COPIED OR DISCLOSED, EXCEPT BY WRITTEN AGREEMENT WITH THE UNIVERSITY OF SOUTHAMPTON.</small> | |
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| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Cube-Back Plate | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:1 | | SHEET NUMBER 4 | | No. OFF 1 | |
| A3 | | DO NOT SCALE | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER 7.3 | |
| | | | | | | | | REVISION C | |



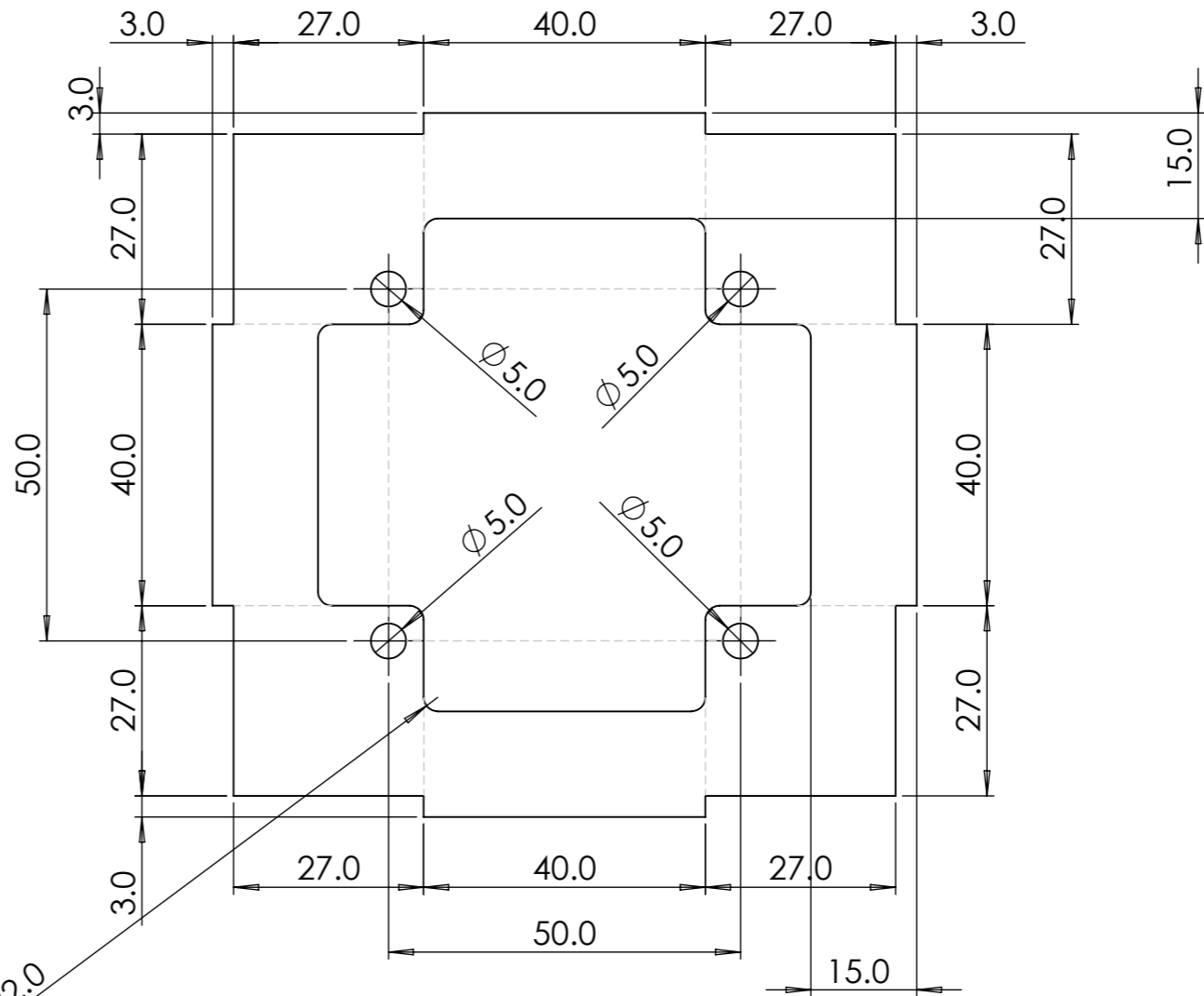
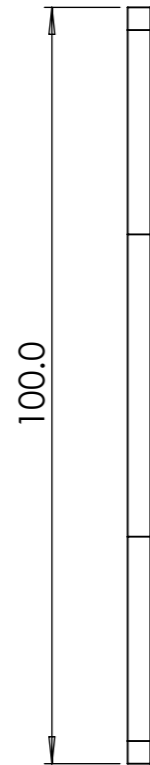
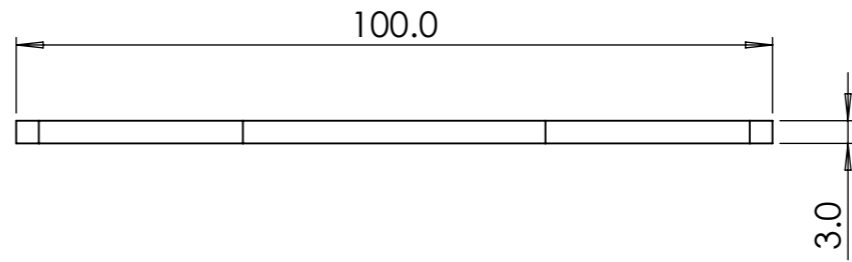
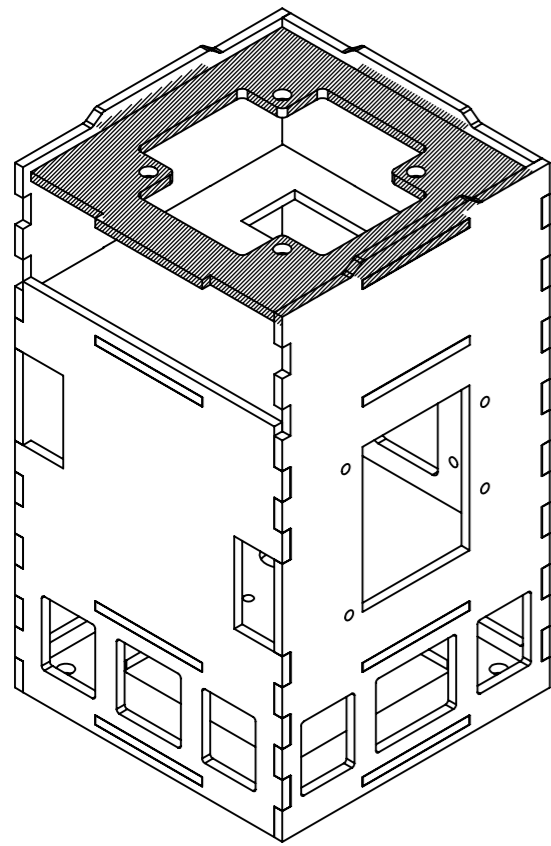
Linear Pattern
8X FINGER JOINTS
FROM DATUM C
10 SPACING
10 CUTOUT

ALL ROUNDED
RECTANGLE
CORNERS R1

Linear Pattern
3X FINGER JOINTS
FROM DATUM D
10 SPACING
10 CUTOUT

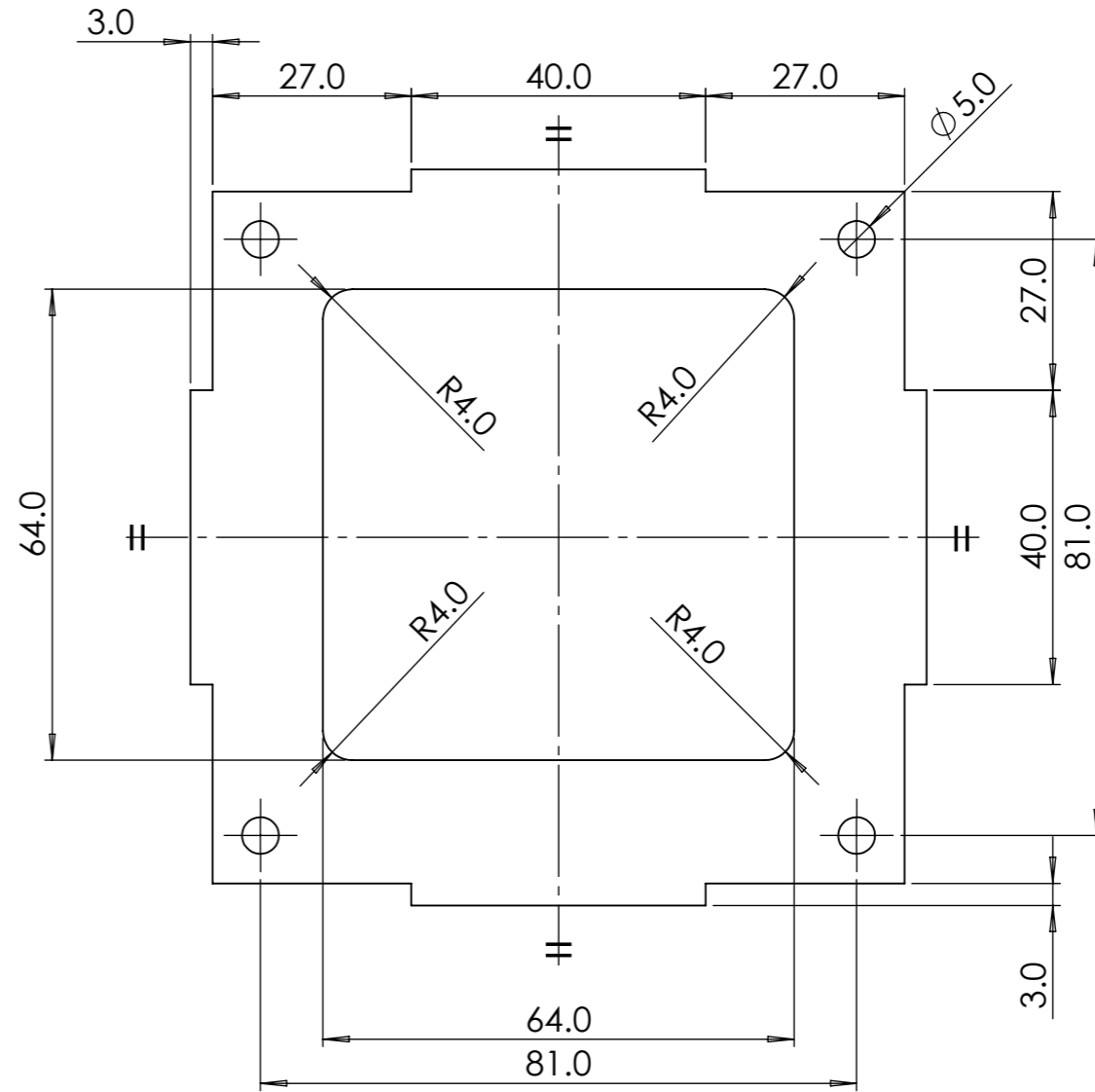
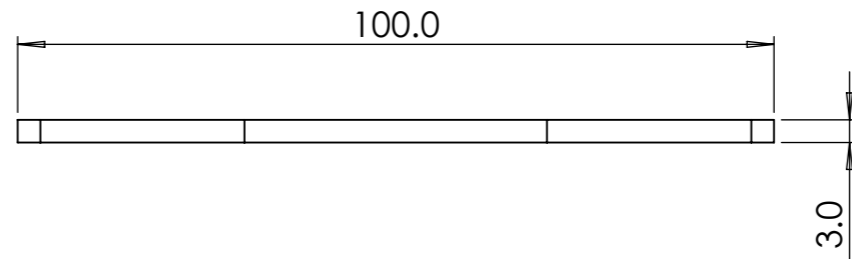
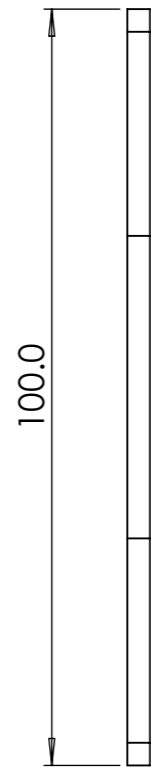
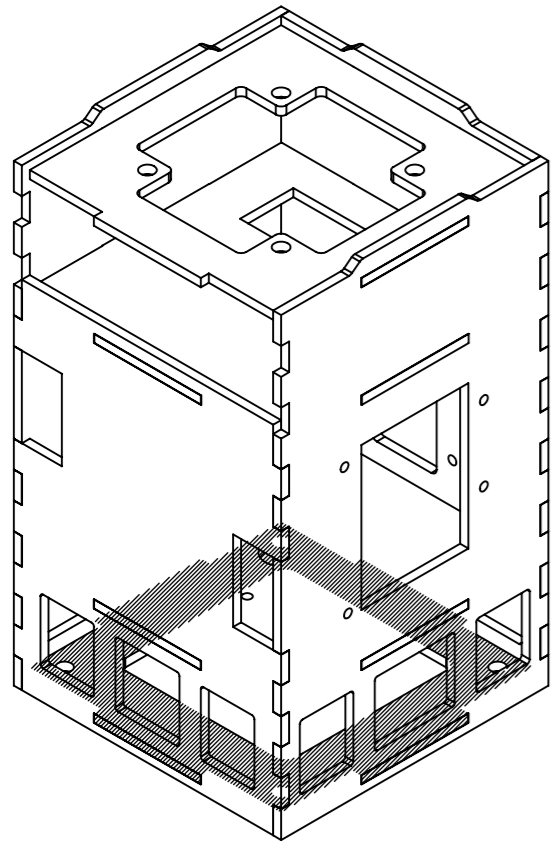
Linear Pattern
4X FINGER JOINTS
FROM DATUM C
10 SPACING
10 CUTOUT

| | | | | | | | | | |
|-------------------------------------|--|-----------------------------------------|--|-------------------------------------------------------------------------------|--|---------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
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| DESIGNED BY Will Jordan | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Cube-Right Face | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:1 | | SHEET NUMBER 5 | | No. OFF 1 | |
| A3 | | DO NOT SCALE | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER 7.4 | |
| | | | | | | | | REVISION C | |

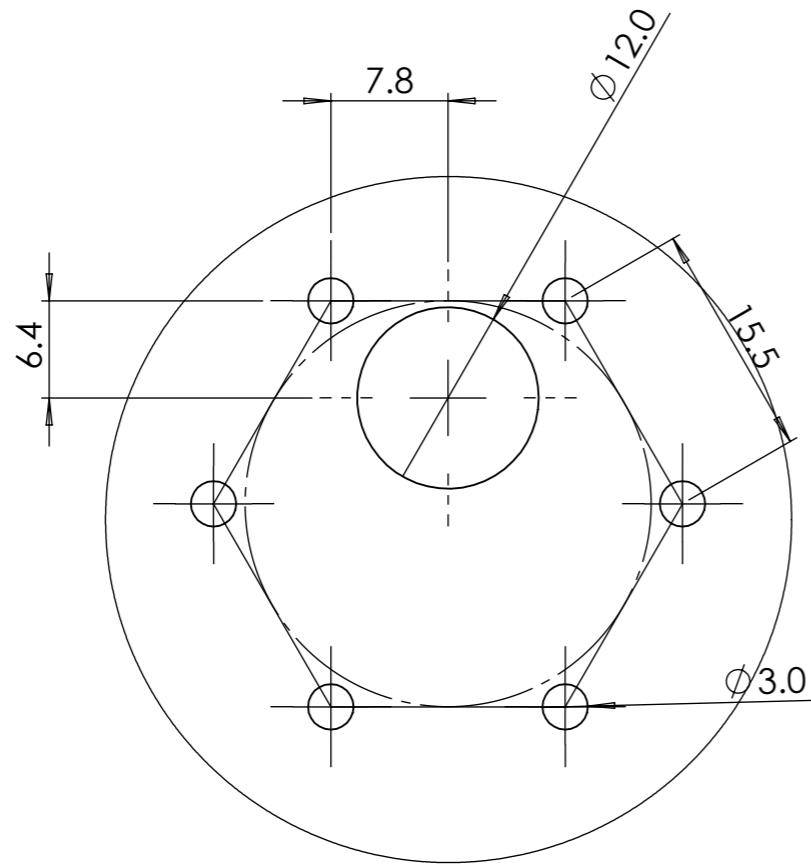
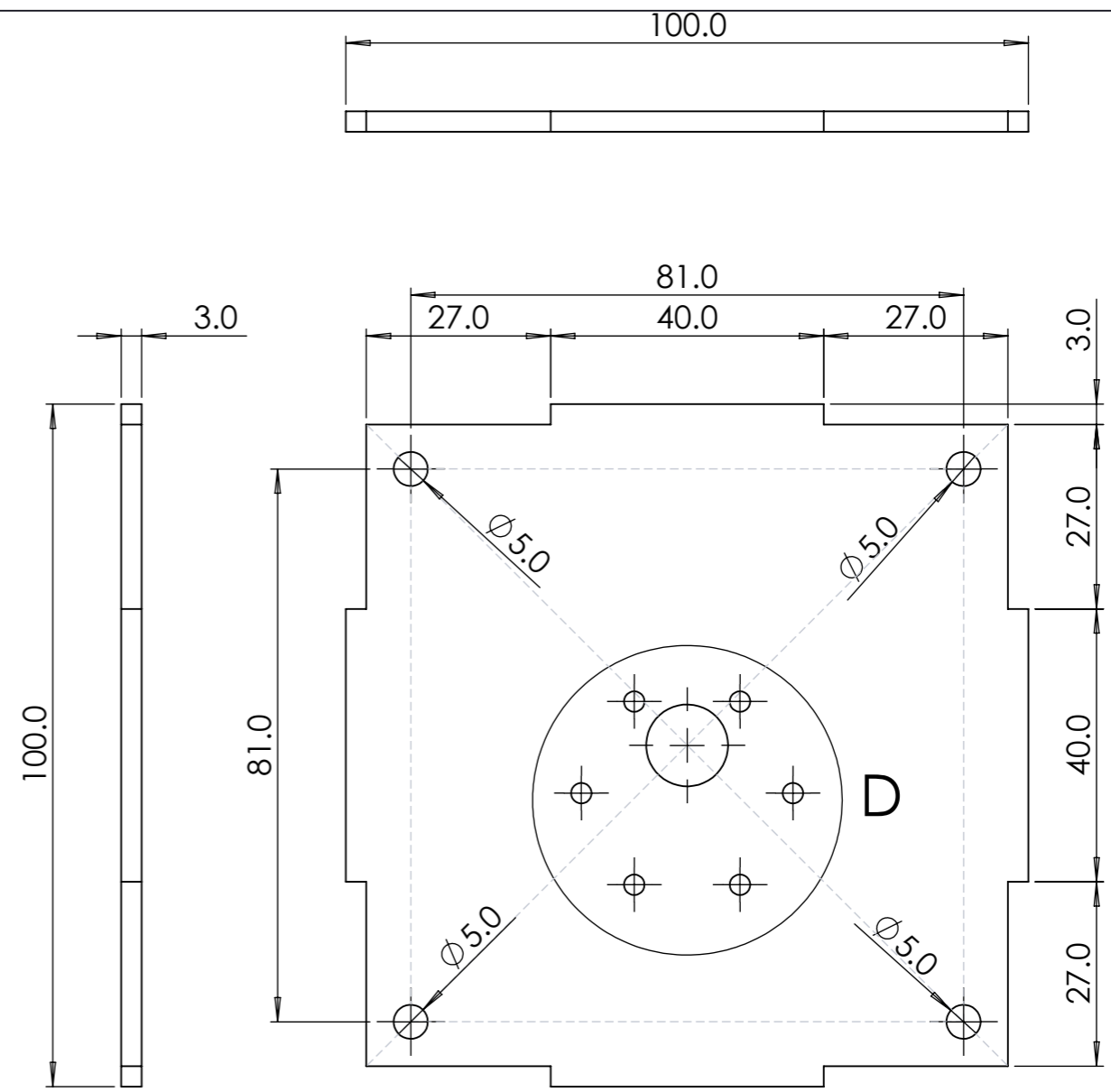
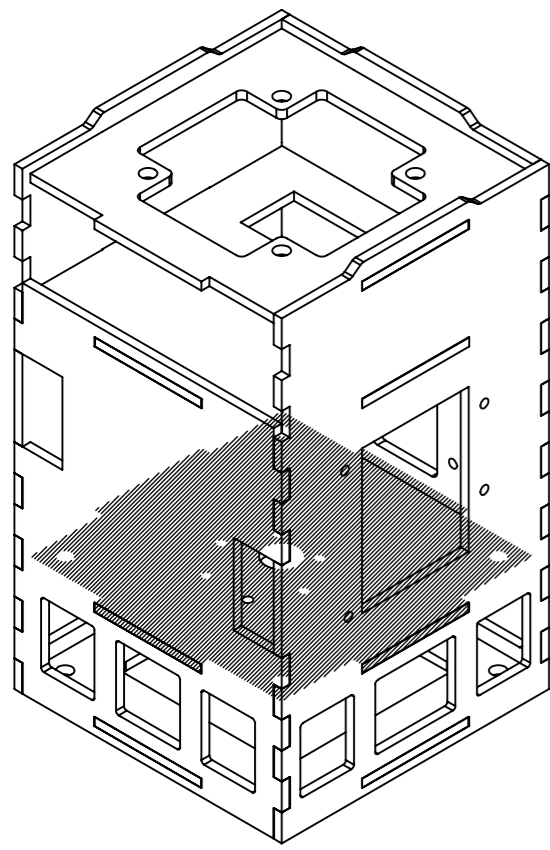


ALL ROUNDED CORNERS R2

| | | | | | | | | | | |
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| DESIGNED BY Will Jordan | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | | | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | TITLE Cube-Top Face | | | | | | |
| A3 | DO NOT SCALE | ⊕ | ⊖ | SCALE 1:1 | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | SHEET NUMBER 6 | No. OFF 1 | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | PART NUMBER 7.5 | REVISION C |



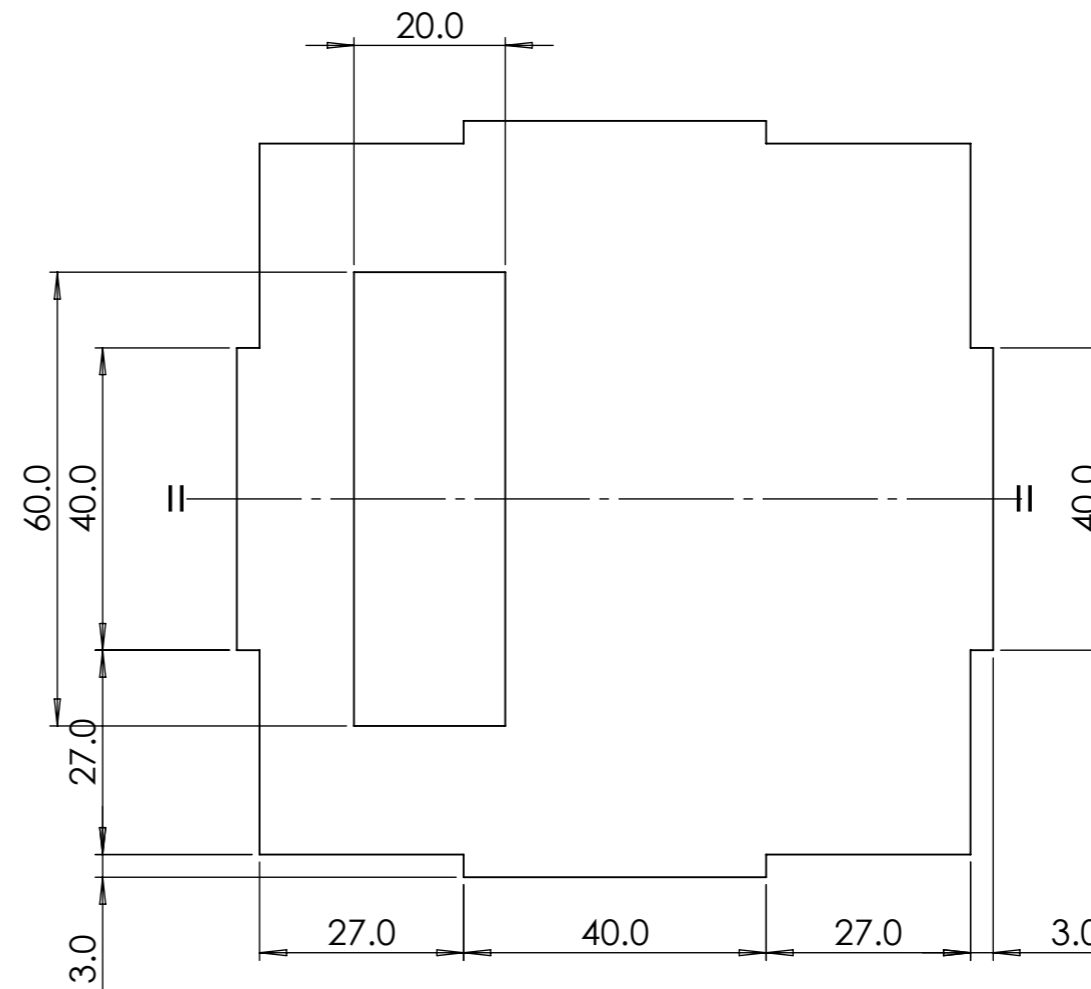
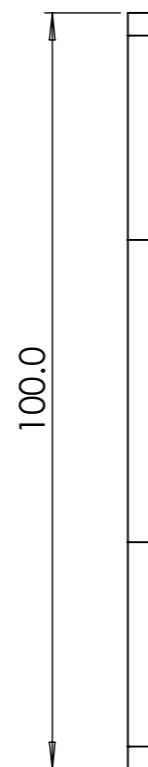
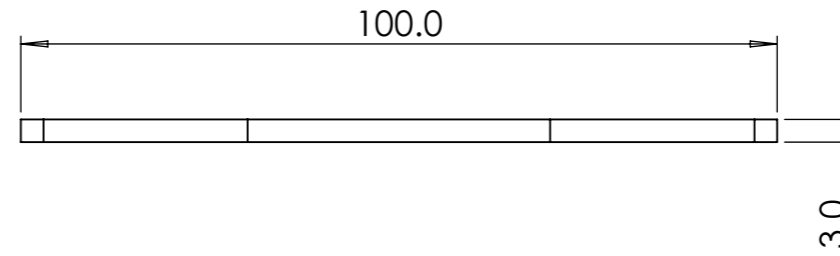
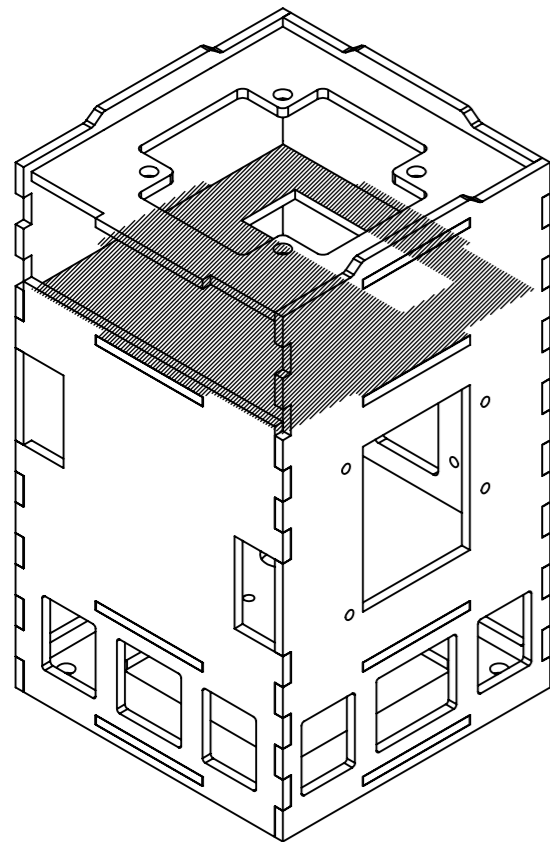
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| DESIGNED BY Will Jordan | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | TITLE Cube-Base Plate | | | | | |
| A3 | DO NOT SCALE | | SCALE 1:1 | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | SHEET NUMBER 7 | No. OFF 1 | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | PART NUMBER 7.6 | REVISION C |



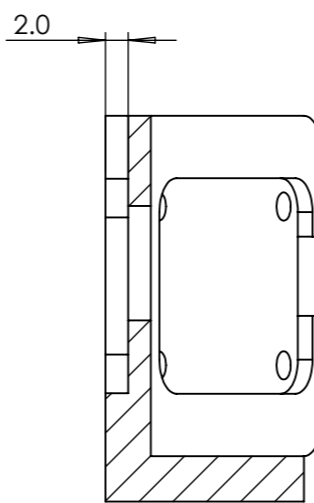
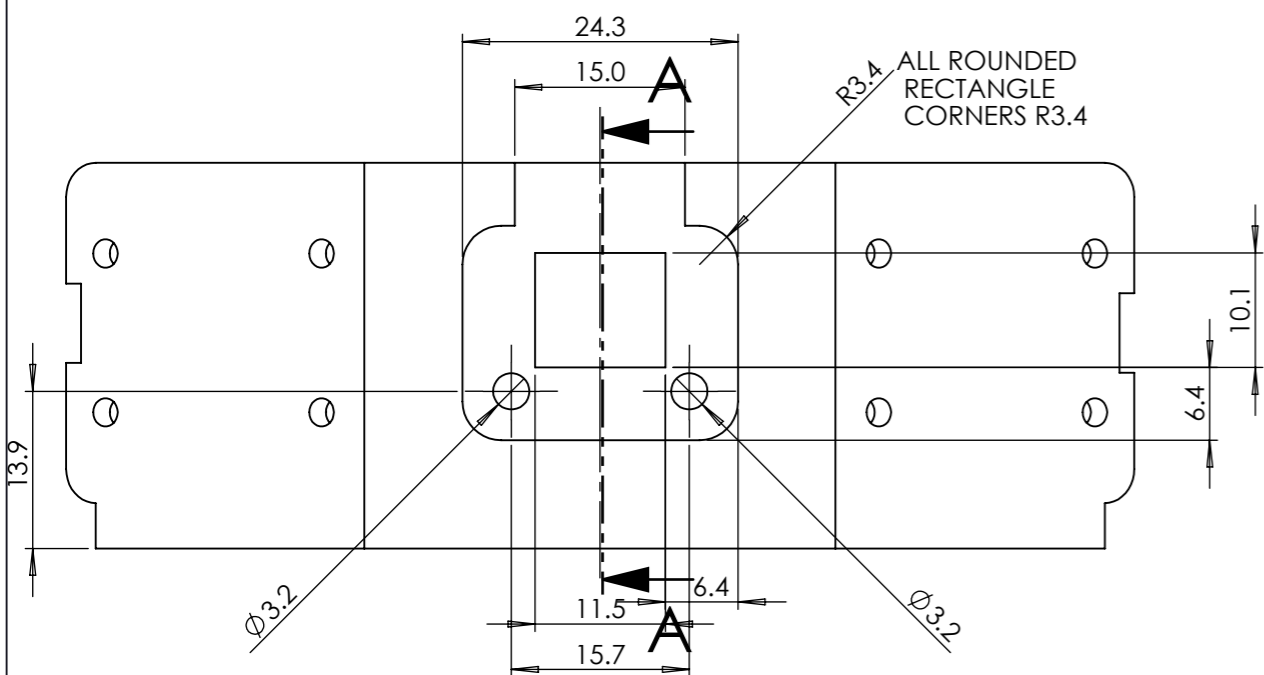
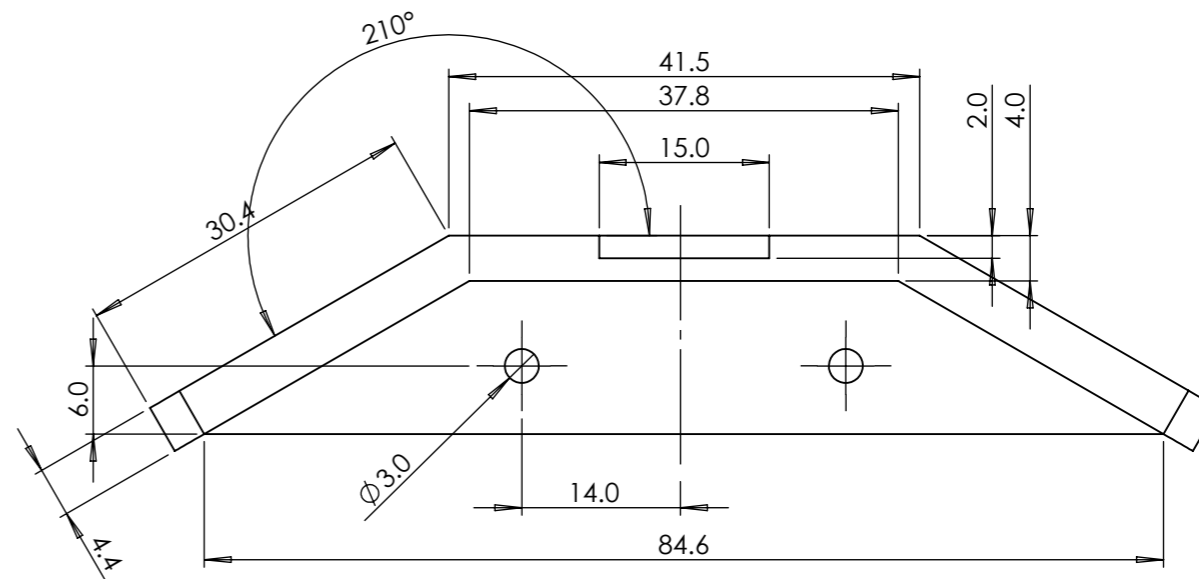
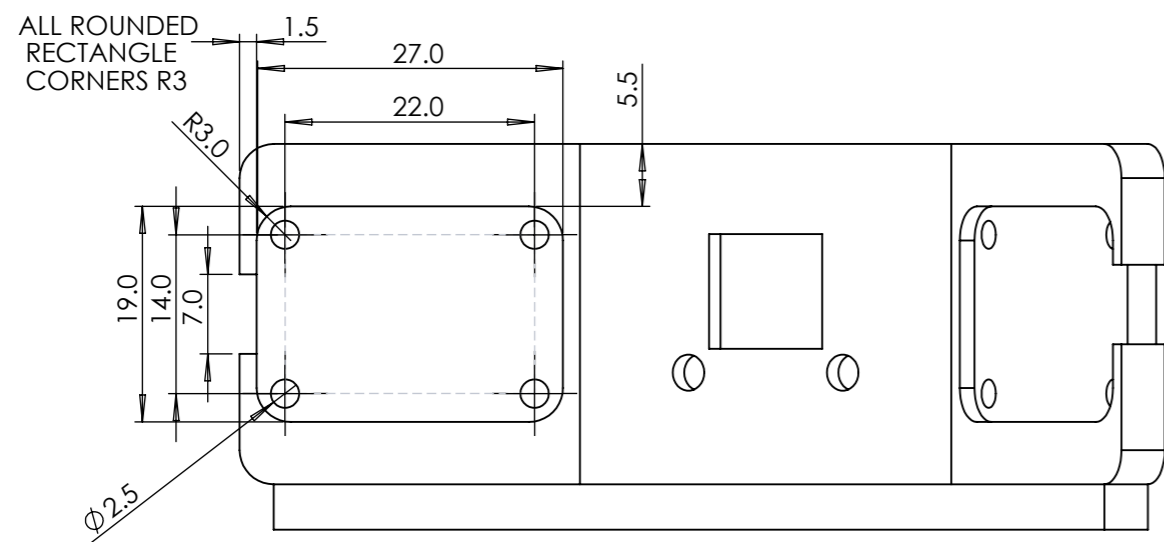
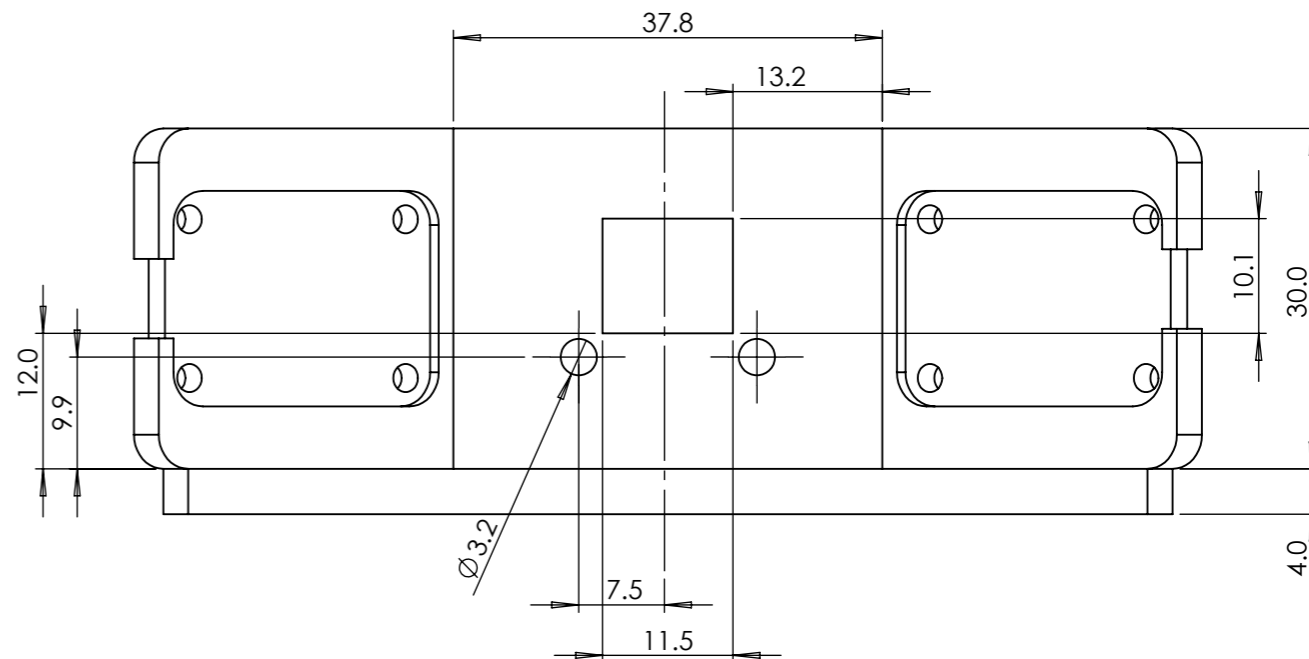
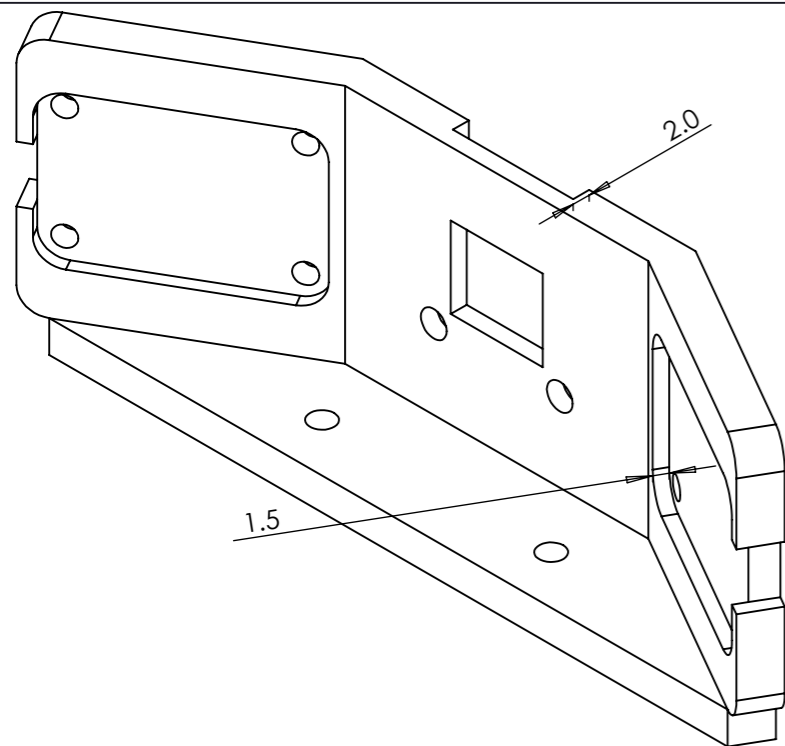
6X Holes
Diameter 3
Placed on a hexagon with side
length 15.5 as shown

DETAIL D
SCALE 2 : 1

| | | | | | | | | | |
|-------------------------------------|--|-----------------------------------------|--|-------------------------------------------------------------------------------|--|---------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| DRAWN BY Frederick Knight | | DATE OF ISSUE 3.5.2026 | | TOLERANCE UNLESS OTHERWISE STATED | | SURFACE TEXTURE | | University of Southampton School of Engineering <small>THE INFORMATION HEREIN CANNOT BE COPIED OR DISCLOSED, EXCEPT BY WRITTEN AGREEMENT WITH THE UNIVERSITY OF SOUTHAMPTON.</small> | |
| DESIGNED BY Will Jordan | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | TITLE Cube-Level 1 | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | SCALE 1:1 | | SHEET NUMBER 8 | | No. OFF 1 | |
| DO NOT SCALE | | | | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | | PART NUMBER 7.7 | |
| | | | | | | | | REVISION C | |



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|-------------------------------------|--------------|-----------------------------------------|---------------------|-------------------------------------------------------------------------------|--|---------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------|
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| DESIGNED BY Will Jordan | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | | | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | TITLE Cube-Level 2 | | | | | | |
| A3 | DO NOT SCALE | | SCALE 1:1 | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | | SHEET NUMBER 9 | No. OFF 1 | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | PART NUMBER 7.8 | REVISION C |



SECTION A-A

| | | | | | | | | | | |
|---------------------------------|--------------|-----------------------------------------|---|-------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------|
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| DESIGNED BY Frederick Knight | | SUPERVISOR / TECHNICAL REFERENCE PERSON | | LINEAR DIMENSIONS X = +/- 0.5 mm X.X = +/- 0.25 mm X.XX = +/- 0.1 mm | | \sqrt{Ra} ALL OVER UNLESS OTHERWISE STATED REMOVE ALL SHARP EDGES | | | | |
| PROJECT Cube-Sat | | APPROVED BY | | ANGULAR DIMENSIONS X = +/- 1° X.X = +/- 0.5° | | | | | | |
| MATERIAL Birch Plywood | | FINISH Rough | | TITLE Cube-Sensor Holder | | | | | | |
| A3 | DO NOT SCALE | ⊕ | ⊖ | SCALE 1:1 | ALL DIMENSIONS IN MILLIMETRES OR DEGREES UNLESS OTHERWISE STATED | SHEET NUMBER 1 | No. OFF 1 | EDMC WORK ORDER NUMBER (OFFICE USE ONLY) | PART NUMBER 8 | REVISION B |