



National
Qualifications
2025

X835/77/11

Graphic Communication Supplementary sheets

WEDNESDAY, 30 APRIL

1:00 PM – 3:30 PM

Supplementary sheet 1 for use with question 1, supplementary sheets 2 and 3 for use with question 3 and supplementary sheet 4 for use with question 5.



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BIKE BUILDER CUSTOMISATION

◀ ROAD BIKE ▶

360°

3D INTERACTIVE VIEW

Frame Colour

Cyan d'Azur Flip Voodoo Bronze Flip Reflex Green Flip Reflex Blue Flip

Small
5' 5" - 5' 7"
165 - 170cm
SELECT

Medium
5' 7" - 5' 10"
170 - 178cm
SELECT

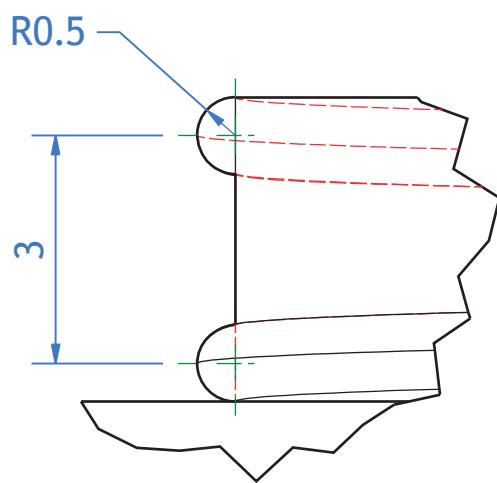
Large
5' 10" - 6' 1"
178 - 185cm
SELECT

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Page 3

COMPONENT A

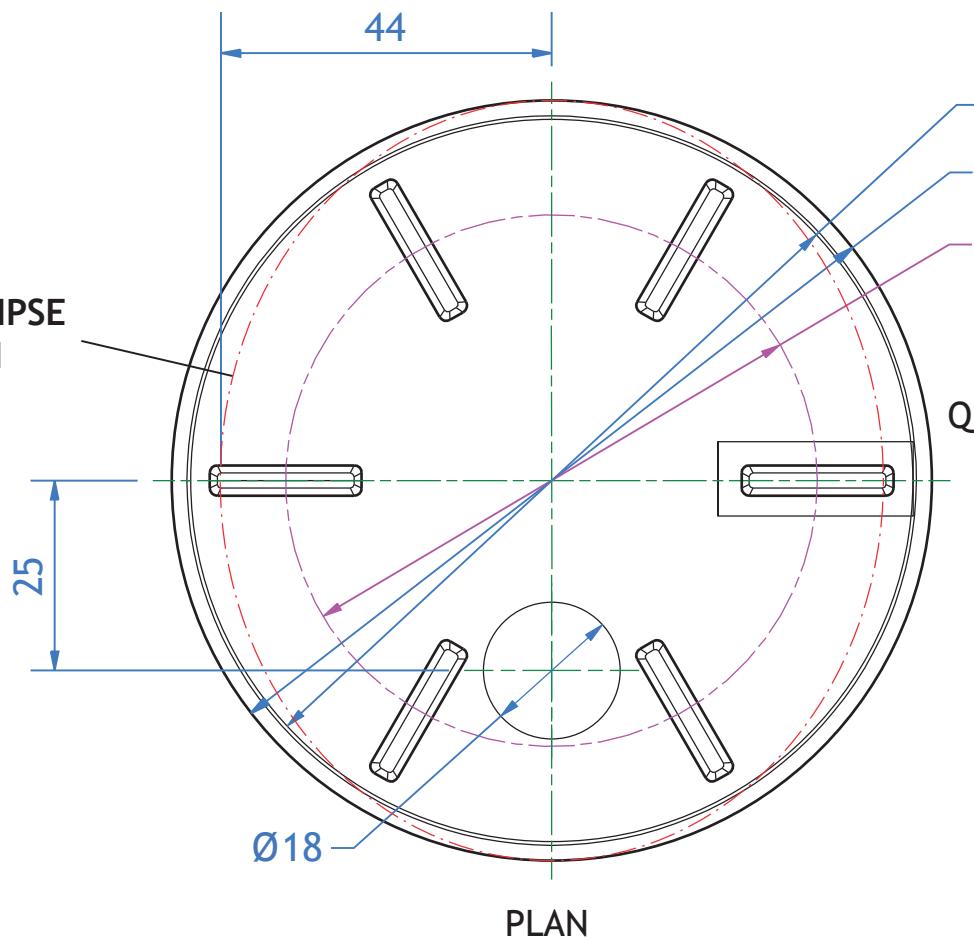
POSITION of ELLIPSE PROFILE SKETCH



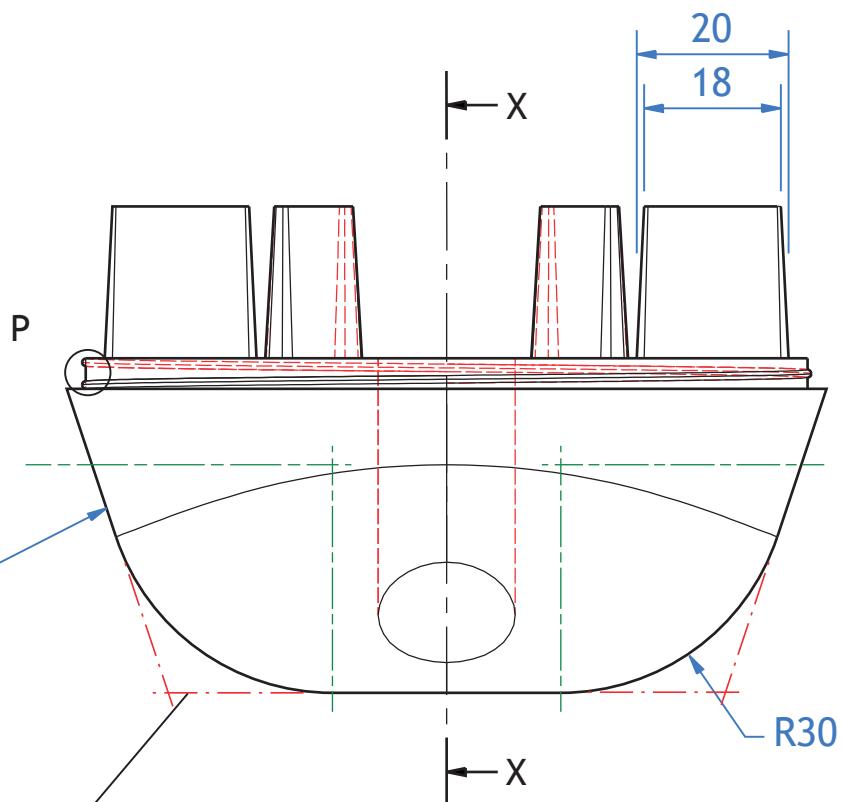
ENLARGED VIEW P SCALE 10:1

SYMBOL D

POSITION of ELLIPSE PROFILE SKETCH

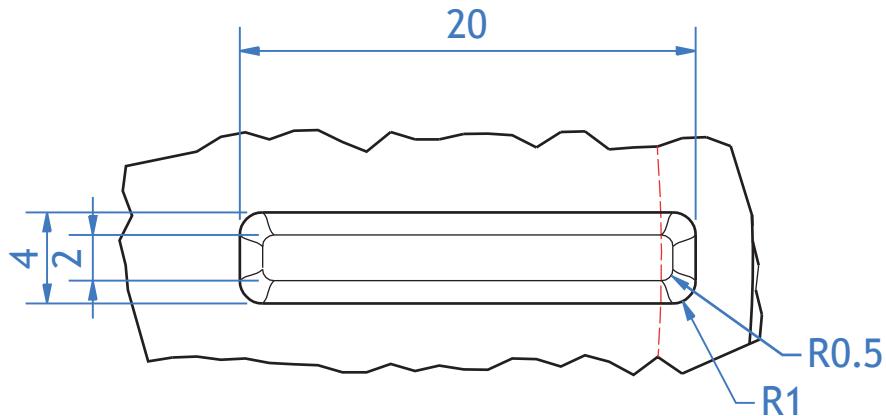


PLAN

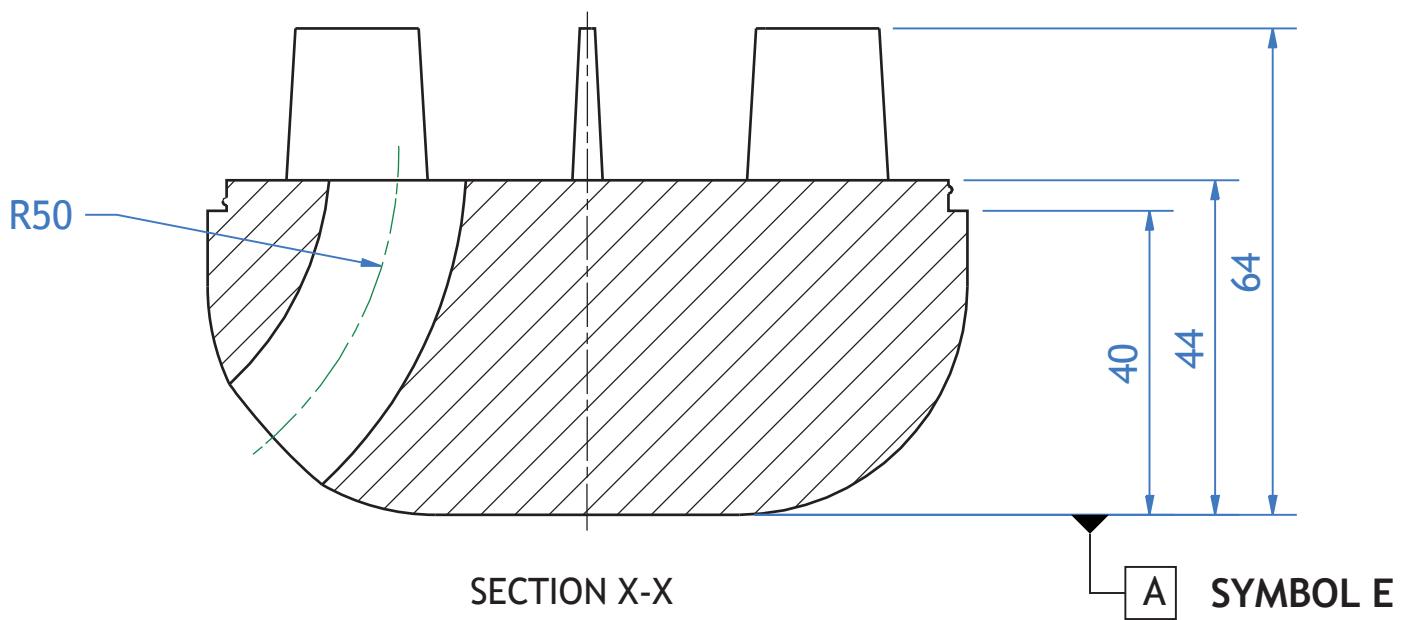


ELEVATION

$\varnothing 95 \pm 0.15$
 $\varnothing 100$
 PCD 70

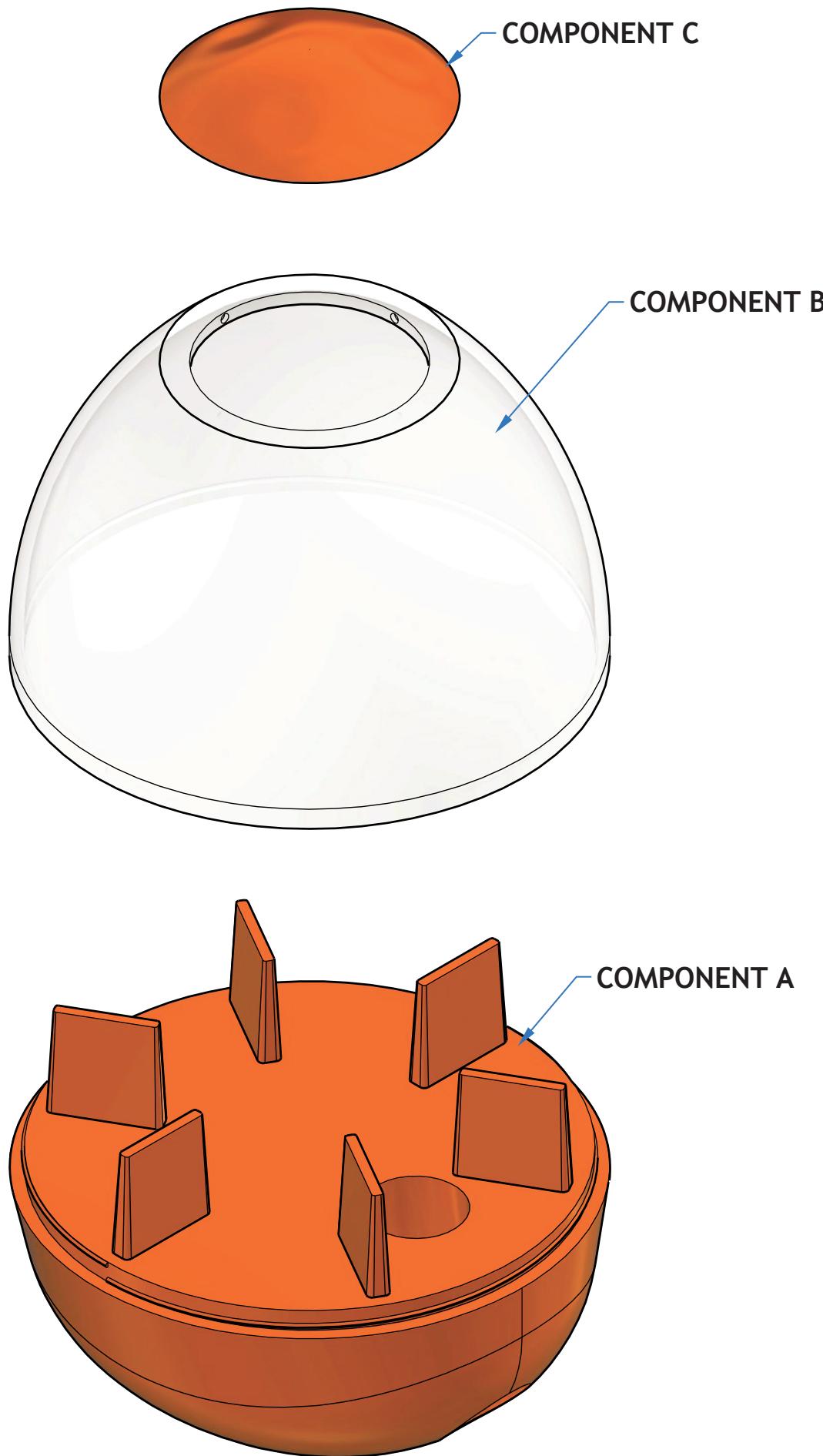


ENLARGED VIEW Q SCALE 3:1 (CENTRE LINES REMOVED FOR CLARITY)

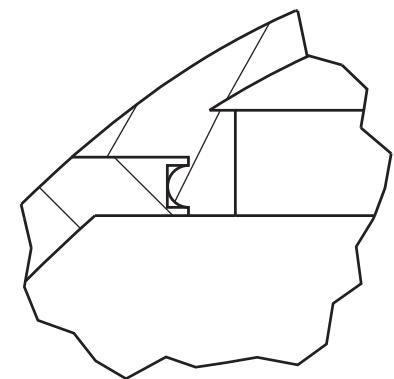


TOLERANCE F

TITLE: DOG TREAT TOY	
DRAWING NUMBER: 1	
ALL DIMENSIONS IN MM TOLERANCE ± 0.2 UNLESS OTHERWISE STATED	SCALE: 1:1
AUTHOR: A.NON	DATE: 10/10/23



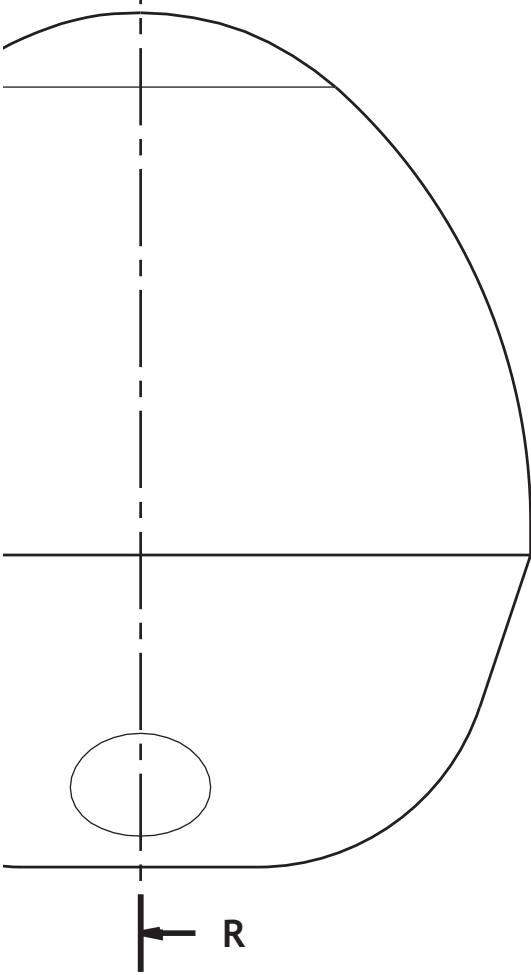
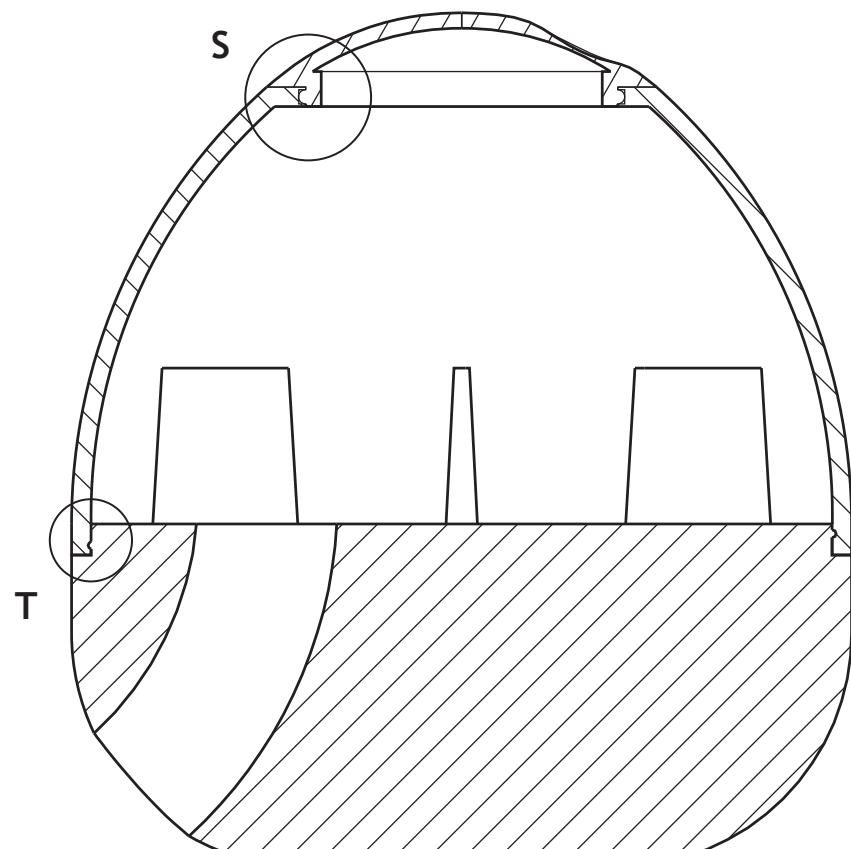
EXPLODED



ASSEMBLED

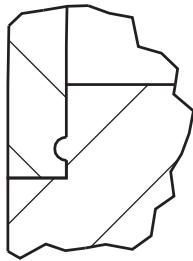
CENTRE LINES HAVE BEEN REMOVED FOR CLARITY

ENLARGED VIEW S
SCALE 4:1



ELEVATION

SECTION R-R

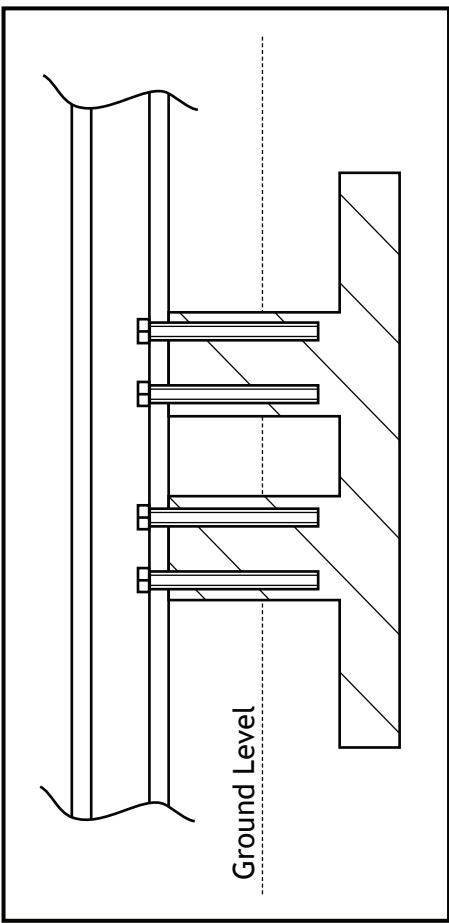


ENLARGED VIEW T
SCALE 4:1

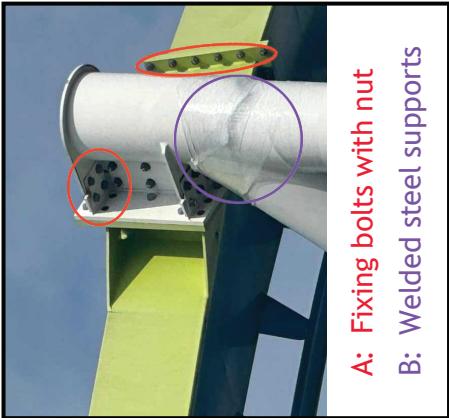
TITLE: DOG TREAT TOY	
DRAWING NUMBER: 2	
EXPLODED AND ORTHOGRAPHIC VIEWS	SCALE: 1:1
AUTHOR: A.NON	DATE: 10/10/23

Specification	<ul style="list-style-type: none"> • Track length: 425 m • Max speed: 18 m/s (65 km/h) • Acceleration max: 4.2 g • Run time: 75/80 s • Number of trains: 1 with 6 cars, 4 seats each
Joining Methods	<ul style="list-style-type: none"> • Track material: Steel • Foundation material: Concrete • Foundation connected to supports using fixing bolts • Frame, supports and tracks assembled using bolts and welding

Column Foundation (Not to BS8888)



Mechanical wheel and brake system

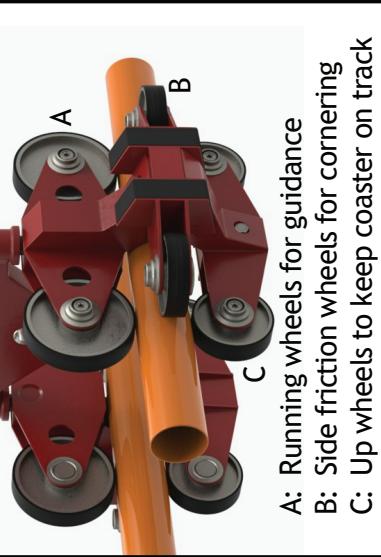


- A: Fixing bolts with nut
B: Welded steel supports

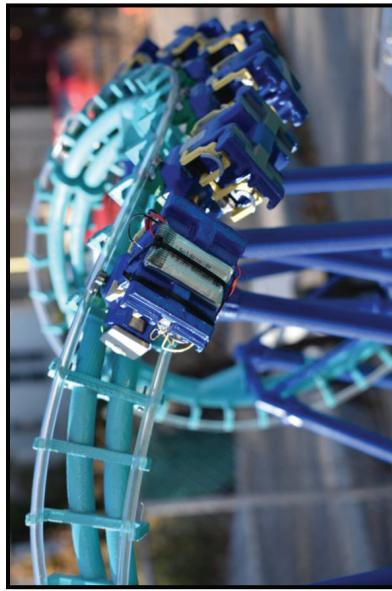
3D Printed model



Mechanical wheel and brake system



- A: Running wheels for guidance
B: Side friction wheels for cornering
C: Up wheels to keep coaster on track



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Bike helmet: <https://pixabay.com/photos/bicycle-helmet-helmet-bike-helmet-505399/>
- Supplementary sheet 4 Joining methods: Image is taken from Davide Mavillonio on LinkedIn, https://www.linkedin.com/posts/davide-mavillonio_fem-cfd-ansys-ugcPost-7082302878328995840-Wn4t/
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