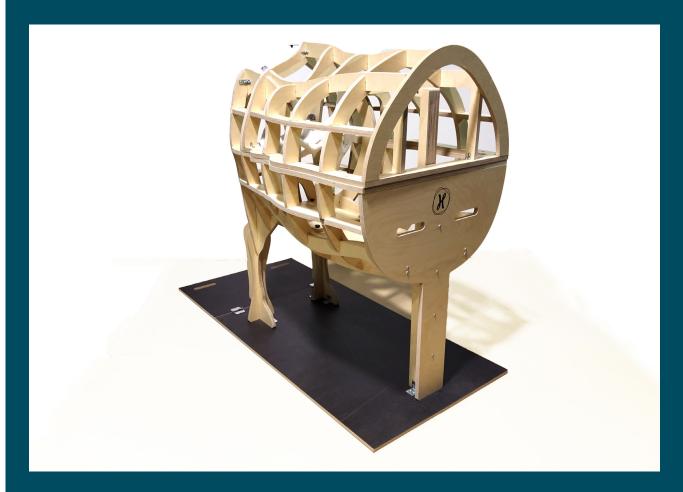
# USER MANUAL



Assembly and set up instructions for procedures on the Interlocking Bovine.



## **Interlocking Bovine**

Revision A: Interlocking Bovine User Manual.

Product Sku: B100-000

Last Updated: 8 November 2023



## Part List

#### You will Need:

- Power Drill
- Pozi Drill Bit
- Pozi Screwdriver

#### **Spare Parts:**

QTY

Spare Parts Available to Order

For all other parts or repairs, please contact Holsim through our website www.holsim.co.nz

#### **Overall Hardware**

•	Small Angled Bracket	12
•	Medium Angled Bracket	2
•	Large Angled Bracket	6
•	6G x 15mm Buttonhead Screws	48
•	Big Hinges	2
•	10G x 20 Self Tapping Screws	32
•	6G x 12mm Countersunk Screw	12
•	Knurl Screws	4
•	Pelvis Angle Bracket	2
	Pelvis Straight Bracket	2

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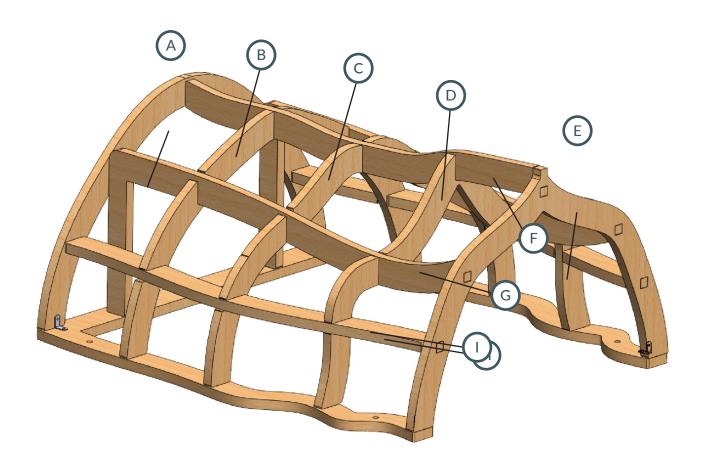
General`	QTY	Hardware used	QTY
Bottom Cage — Part H	2	Small Angle Brackets	4
Legs — Part B	2 2 1	6G x 15mm Buttonhead Screws 10G x 32 Self Tapping Screws Pelvis Angle Brackets	16 8 2
Legs — Part D			
Mezzanine			
Back Arch	1	Pelvis Straight Brackets	2
		M6 Knurl Screw	4
Base	QTY	Hardware used	QTY
Base - Part A	1	Large Angled Bracket	6
Base - Part B	1	10G x 20 Self Tapping Screws	24
Front Pole	1	Big Hinges	2
Mezzanine Support - Part A	1	6G x 12mm Countersunk Screws	12
Mezzanine Support - Part B	1		
Legs	QTY	Hardware used	QTY
Legs — Part A	2	Small Angle Brackets	2
Legs — Part B	1	6G x 15mm Buttonhead Screws	4
Shroud Support — A	1		
Shroud Support — B	2		
<b>Bottom Cage</b>	QTY	Hardware used	QTY
Bottom Cage — Part A	2	Medium Angle Bracket	2
Bottom Cage — Part B	2	Small Angle Brackets	4
Bottom Cage — Part C	2	6G x 15mm Buttonhead Screws	16
Bottom Cage — Part D	2		
Bottom Cage — Part E	1		
Bottom Cage — Part F	2		
Bottom Cage — Part G	2		
Front Stand	1		
Top Cage	QTY	Hardware used	QTY
Top Cage — Part A	1	Small Angle Brackets	6
Top Cage — Part B	1	6G x 15mm Buttonhead Screws	12
Top Cage — Part C	1		
Top Cage — Part D	1		
Top Cage — Part E	1		
Top Cage — Part F	1		
Top Cage — Part G	2		
Top Cage — Part H	2		
Top Cage — Part I	1		



## Top Cage



## Layout pieces



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## Laydown the base

 Lay down Top Cage - Part I on the floor with the closed in end furthest away from you.



## 3 STEP THREE

#### Sit Part B on Part I

• Lay down Top Cage - Part I on the floor with the closed in end furthest away from you.



## 4 STEP FOUR

#### Place Part C on Part I

• Lock in Part C as shown.

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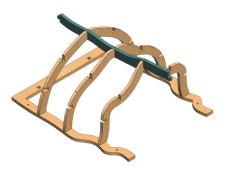
## **Top** Cage





#### Place Part D On Part I

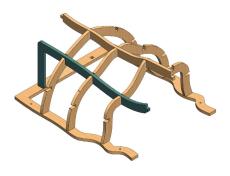
• Lock in Part D as shown.



## 6 STEP SIX

#### Place in Part F

Interlock Part F through the top of each arch as shown.



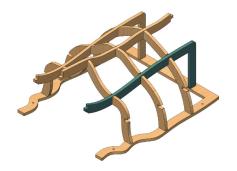
## **7** STEP SEVEN

#### **Locate Part G**

• Interlock Part G as shown on one side of the arches.

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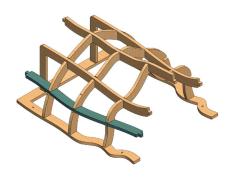






#### Repeat on opposite side

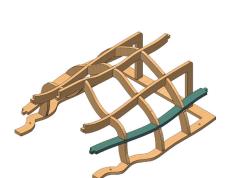
 Add another Part G to the opposite side of the Top Cage.



## 9 STEP NINE

#### **Locate Part H**

• Interlock Part H with one side of the arches



## 10 STEP TEN

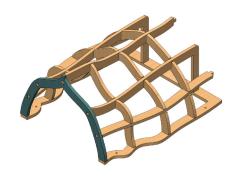
## Repeat On Opposite Side

• Add another Part H to the opposite side of the Top Cage.

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## **Top** Cage





#### **Locate Part E**

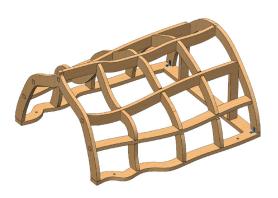
Locate Part E onto the back end of the Top Cage.



## 12 STEP TWELVE

#### **Locate Part A**

 Locate Part A onto the front end of the Top Cage.



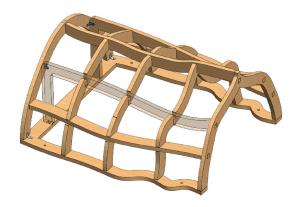
## 13 STEP THIRTEEN

## **Add Small Angle Brackets**

- Using the 6g x 15mm Buttonhead Screws, secure a small angle bracket onto the base of Part A where it meets Part I as shown.
- Repeat on opposite side of the cage.

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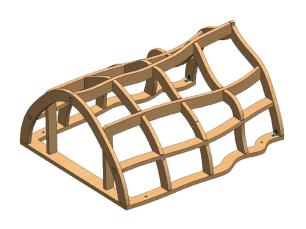






#### Add Angle Bracket onto G

- Using the 6g x 15mm Buttonhead Screws, secure a small angle bracket onto the internal face of the top part of Part G like shown.
- Screw the other part of the bracket onto the internal face of Part A.
- Repeat on the other Part G, attaching it to the left side of the internal face of Part A.



## **15 STEP FIFTEEN**

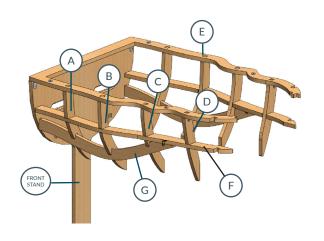
#### Add Angle Bracket onto E.

- Using the 6g x 15mm Buttonhead Screws, secure a small angle bracket onto the base of Part E where it meets Part I
- Repeat on opposite side of the arch/cage.

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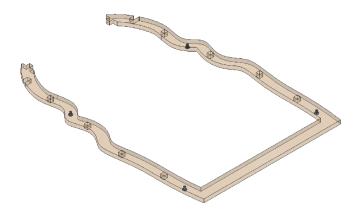
## **Bottom** Cage



## **1** STEP ONE

#### Lay Down the Base

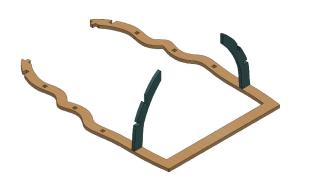
- Lay down Bottom Cage Part E on the floor with the open in end furthest away from you.
- Ensure the wide head of the threaded inserts are facing the floor.



## 2 STEP TWO

#### Interlock with A Part E

- Interlock the base of Part A with Part E.
- Repeat on opposite side of cage.



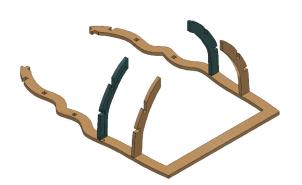
## **3 STEP THREE**

#### Interlock Part B with E

- Interlock Part B with Part E.
- Repeat on opposite side of cage.

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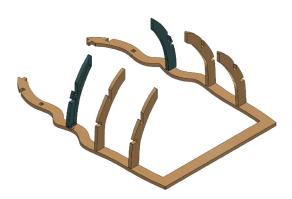




## 4 STEP FOUR

#### Interlock Part C with Part E

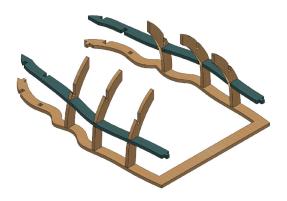
- Interlock Part C with Part E.
- Repeat on opposite side of cage.



## 5 STEP FIVE

#### **Locate Part F**

- Interlock Part F with the horizontal slots on Parts A to E.
- Repeat on opposite side of the cage.



## 6 STEP SIX

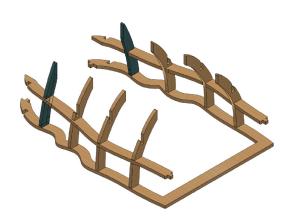
#### Slot Together D with F

- Slot Part D with Part F.
- Repeat on opposite side of cage
- Note: Part D does NOT tab into Part E, this tab is utilized by another part at a later stage of the assembly.

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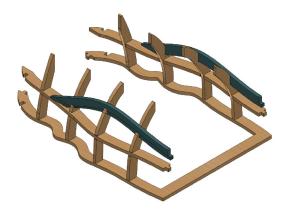
## **Bottom** Cage





#### **Locate Part G**

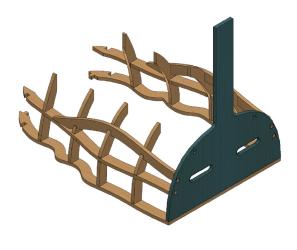
- Lock Part G into Part A to D as shown.
- Repeat on opposite side.



## 8 STEP EIGHT

#### **Locate Front Stand**

 Locate the Front Stand onto the closed in end of Part E, ensuring the ends of the cage pieces slot in flush with the front face of the Front Stand.



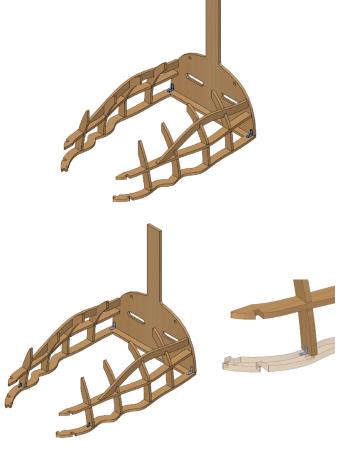
## 9 STEP NINE

#### **Add Medium Angle Brackets**

- Secure Front Stand onto the Bottom Cage assembly using a medium angle bracket on each side of the cage and 6g x 15mm Buttonhead Screws, ensuring it secures the Front Stand to Part E as shown.
- Repeat on opposite side of the cage as shown.

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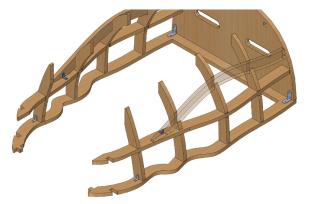
#### **Add Small Angle Brackets**

- Add a small angle bracket to secure Part D to Part E using 6g x 15mm Buttonhead Screws.
- Align directly above tabs on part E
- Repeat on opposite side of the cage as shown.



#### Add Bracket to Part G

- Interlock Part F with the horizontal slots on Parts A to E.
- Repeat on opposite side of the cage.



## 12 STEP TWELVE

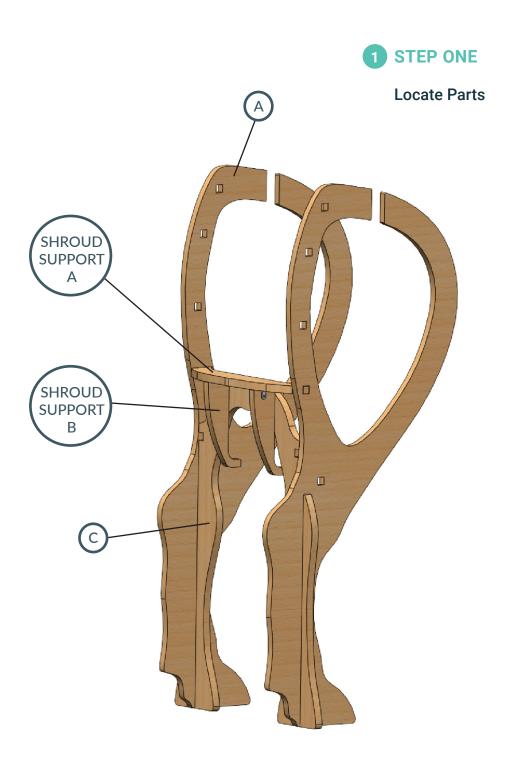
#### Slot Together D with F

- Using the 6g x 15mm Buttonhead Screws, add a small angle bracket to the internal face of Part G, where it meets Part F as shown.
- Repeat on opposite side of the cage.

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## Leg Assembly



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## **Locate Leg Part A Left and Right**

• Locate one of the Leg Part A's



## 3 STEP THREE

## **Locate Shroud Support A**

Locate Shroud Support Part A as shown



## 4 STEP FOUR

## Locate leg Part A Left and Right

 Locate the second Leg Part A into shroud support A as shown

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## **Bottom** cage





#### Slot in Leg Part C

 Locate Leg Part C and slot into the Leg Part A's as shown.



## 6 STEP SIX

#### **Fasten with Angle Brackets**

 Fasten Support Part B in place with a small angle bracket and 6g x 15mm Buttonhead Screws as shown. Repeat on the opposite side of the other Support Part B.



## **7** STEP SEVEN

#### Connect part g into front slot of part d

 Fasten Support Part B in place with a small angle bracket and 6g x 15mm Buttonhead Screws as shown. Repeat on the opposite side of the other Support Part B.

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## Base Assembly





#### Lay Down the base

• Lay out the base as shown



## 2 STEP TWO

#### Locate front pole

 Locate the front pole between the four drilled holes at the front end of the main base as shown.



## 3 STEP THREE

#### Fasten in place

 Fasten two large angle brackets (one on each side of the pole) in place with 10g x 20 Self Tapping screws.

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## **bottom** cage





#### **Ensure Pole Is secured**

• Ensure the pole is securely fastened to the base.



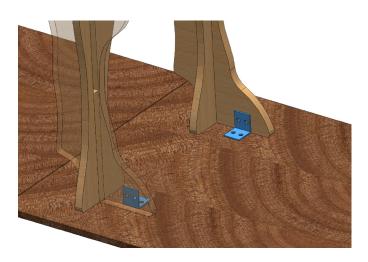
## 5 STEP FIVE

## **Locate Leg Assembly**

- Sit the leg assembly in place amongst the drilled holes as shown at the back end of the main base piece.
- Ensure the legs are centrally aligned.

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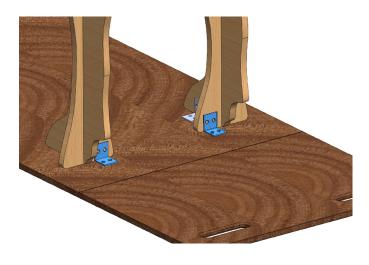






#### **Secure Hooves**

- Secure the hooves to the base using a large angle bracket on the internal face of each hoof, lining them up with the holes drilled in the base.
- Use 10G x 20mm Self Tapping Screws to secure the brackets to the base and hooves



## **7** STEP SEVEN

#### Secure back of hooves

- Secure the hooves to the base using a large angle bracket on the back face of each hoof, lining them up with the holes drilled in the base.
- Use 10g x 20mm Self tapping Screw to secure the brackets to the base and hooves

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## **Base** Assembly





## Locate Mezzanine Support Part A

• Locate the mazzanine Support part A in the clot closest to the front pole upright.



## 9 STEP NINE

## Locate Mezzanine Support Part B

• Locate the mezzanine support part B in the second slot as shown.

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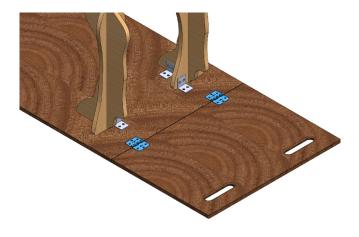




## 10 STEP TEN

## **Check Assembly**

• Ensure legs and front pole are secured to the base and that the orientation are correct.



## 11 STEP ELEVEN

#### **Attach Hinges to Base**

- Secure base part A and part B together with the two Big Hinges Assemblies
- Fasten in place using 6G x 12mm Countersunk Screws.

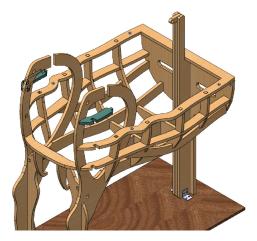
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## **General** Assembly







## 1 STEP ONE

#### Loacte Bottom Cage Part H

- Locate Bottom Cage Part H into the Front Stand and Leg Part C as shown.
- Repeat on both sides of the cow.
- Note: You may have to flex the legs back a little to enable the piece to lock into place.

## 2 STEP TWO

#### Slide in Bottom Cage

- Slide in the bottom cage assembly as shown.
- The front stand should be sitting hard against the front pole, with Part E of the bottom cage assembly resting in the ledge of the front pole.

## 3 STEP THREE

#### Loacte Leg Part B Left and Right

- Locate Leg Part B into the outside face of Leg Part A as shown.
- Repeat on other leg.

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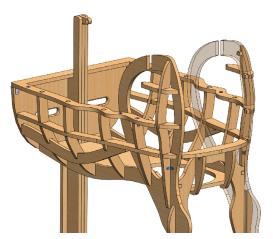






#### Locate Leg Part D Left and Right

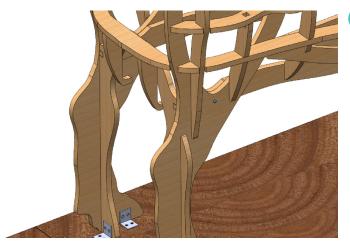
- Locate Leg Part D and slot it into the back end of the Bottom Cage assembly and Leg Part B as shown.
- It should be sitting flush against the external face of Leg Part A.



## 5 STEP FIVE

#### **Locate Small Angle Bracket**

- Using the 6g x 15mm Buttonhead Screws, locate a small angle bracket onto the bottom of the Leg Part D and the Leg Part A as shown.
- Repeat on the other side of the cow.



## 6 STEP SIX

#### **Secure Legs**

- Screw a 10G x 32mm Self Tapping Screw through the external face of the Leg Part A, into the Bottom Cage Part H.
- Repeat on other leg on other side of the cow.

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## **Bottom** cage





#### **Install Angled Brackets**

- Locate Mezzanine
- Fasten the 3D Printed Angle Brackets to the mezzanine as shown using 6g x 15mm Buttonhead Screws.
- Ensure the brackets are angled towards the front of the mezzanine.



## **8** STEP EIGHT

#### Locate the Mezzanine

Locate the mezzanine into the cow as shown.



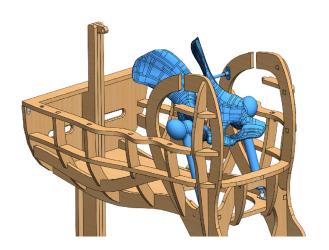
## 9 STEP NINE

#### **Secure Front Stand**

- Use six 10G x 32mm Self Tapping Screws to secure the Front Stand to the Front Pole.
- Ensure screws are located in a similar central pattern as shown.

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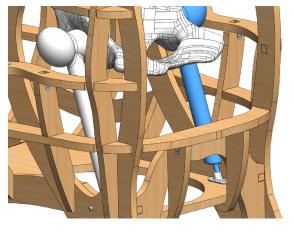






#### **Pelvis & Femur Bones**

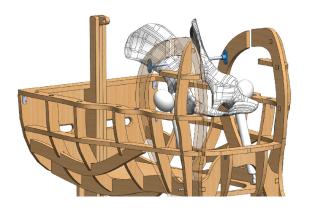
- Attach the Straight Pelvis Brackets onto the ends of the horizontal rods protruding from each side of the pelvis.
- Insert the Pelvis Assembly between the legs of the cow as shown.



## 11 STEP ELEVEN

#### **Pelvis & Femur Bones**

 Insert the bottom rods that extrude from the base of the femur bones, into the Angled Pelvis Brackets attached to the mezzanine.



## 12 STEP TWELVE

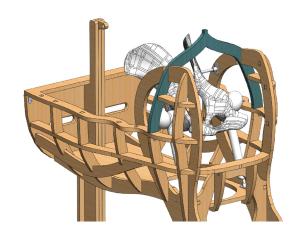
#### **Fasten Brackets To Legs**

• Fasten the Straight Pelvis Brackets to the inside of the legs as shown using 6g x 15mm Buttonhead Screws.

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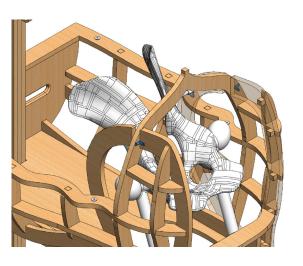
## **Bottom** cage



## 13 STEP THIRTEEN

#### **Locate The back Arch**

• Locate the Back Arch into the cow between the slots in the top of the Leg Part A as shown.



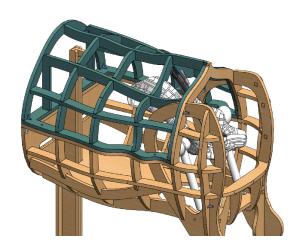
## 14 STEP FOURTEEN

## **Locate Small Angle Bracket**

- Using the 6g x 15mm Buttonhead Screws, locate a small angle bracket onto the top of the Leg Part A and the Back Arch as shown.
- Repeat on the other side of the cow.

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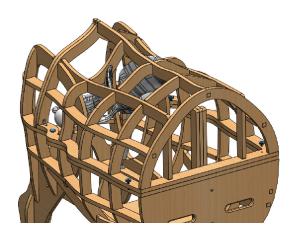




## **15** STEP FIFTEEN

#### **Locate The Top Cage Assembly**

- Locate the Top Cage Assembly onto the cow as shown.
- Note: Ensure the legs are positioned on the outside of the Top Cage Part G, and in front of the Back Arch.



## **16 STEP SIXTEEN**

#### **Secure Top Cage**

- We recommend securing your top cage in place so it doesn't move around during training.
- Do this by inserting the 4x knurl screws through the plywood of the top cage, and screwing them into the threaded inserts of the top face of the bottom cage.

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