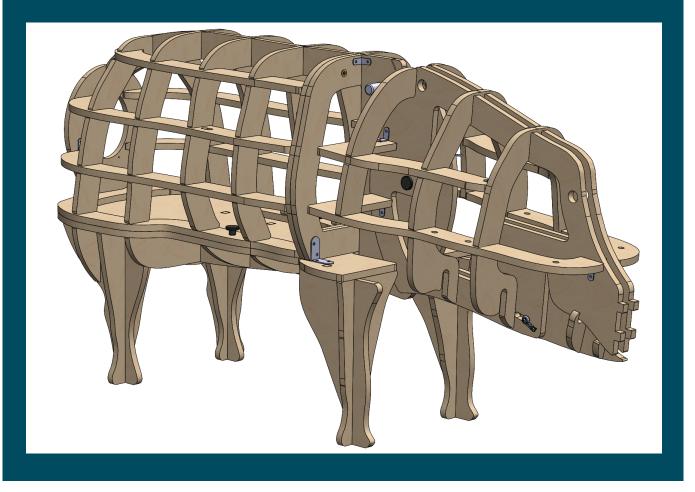
# USER MANUAL





# **Interlocking Porcine**

Revision A: Interlocking Porcine User Manual

Product SKU: P200-000 Last Updated: 10 November 2023



# Part List

# **Equipment Required:**

- Power Drill
- Pozi Drill Bit
- Screwdriver
- Holsim Wooden Mallet

All operational equipment required for teaching various procedures is to be provided by the user.

#### **Spare Parts:**

• 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	24
Medium Angled Bracket	10
6G x 10mm Pan Pozi Self Tapping Screw	50
M3 x 10mm Buttonhead Bolt	2
Eyelet Guide	3
M6 Knurl Screw	6
M3 Flat Washer	4
Rotational Dowel - Large	2
Rotational Dowel - Small	1
Rotational Dowel Plate - Small	2
Nylon Neck Line	1
Neck Stop	1
Jaw Spring	2



# Parts List

### **Top Cage Assembly:**

Top Cage - Part A	1
Top Cage - Part B	1
Top Cage - Part C	1
Top Cage - Part D	1
Top Cage - Part E	1
Top Cage - Part F	1
Top Cage - Part G	1
Top Cage - Part H	1
Top Cage - Part I	1
Top Cage - Part J	2
Top Cage - Part K	2
Top Cage - Part L	2
Top Cage - Part M	1

#### Hardware Required:

# Head Assembly:

Head - Part A	2
Head - Part B	1
Head - Part C	1
Head - Part D	2
Head - Part E	2
Head - Part F	2

#### Hardware Required:

Small Hafele Angle Bracket	8
M6 Knurl Screw	1
Rotational Dowel - Large	1
6G x 10mm Pan Pozi Screw	12
Nylon Neck Line	1
Neck Stop	1

# **Bottom Cage Assembly:**

Bottom Cage - Part A	1
Bottom Cage - Part B	1
Bottom Cage - Part C	1
Bottom Cage - Part D	1
Bottom Cage - Part E	1
Bottom Cage - Part F	1
Bottom Cage - Part G	1
Hardware Required:	
Medium Angle Bracket	2

Medium Angle Bracket	Z
Small Hafele Angle Brackets	4
6G x 10mm Pan Pozi Screw	16

# Legs Assembly:

Leg - Part A	2
Leg - Part B	2
Leg - Part C	2
Leg - Part D	2
Hardware Required:	

Medium Angle Bracket	4
6G x 10mm Pan Pozi Screw	16

# Jaw Assembly:

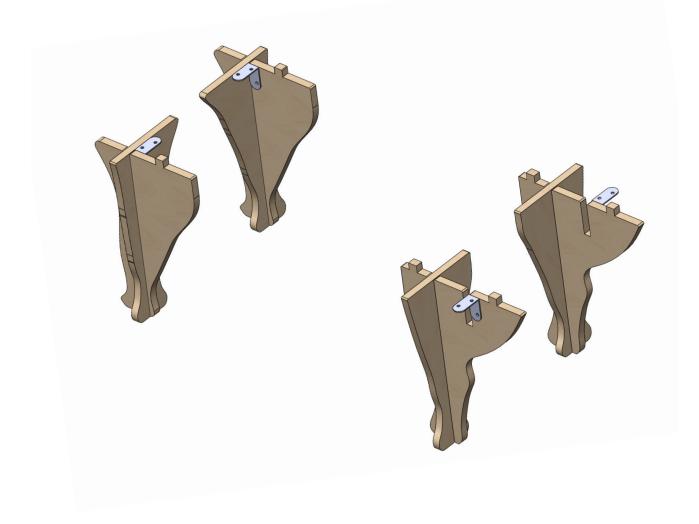
Jaw - Part A	1
Jaw - Part B	1
Jaw - Part C	1

#### Hardware Required:

Rotational Dowel - Large	1
Rotational Dowel - Small	1
Rotational Dowel Plate - Small	2
Eyelet Guide	1
M6 Knurl Screw	1
M3 Flat Washer	4
M3 x 10mm Buttonhead Bolt	2
6G x 10mm Pan Pozi Screw	2
Jaw Spring	2
Nylon Neck Line	



# Leg Assembly



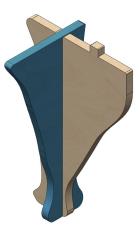


# Leg Assembly



**1** STEP ONE

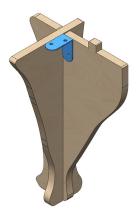
Locate leg part B.



# **2** STEP TWO

#### Slot in Leg Part A

- Locate Leg Part A into Leg Part B as shown
- Take note of the orientation of the parts



# **3 STEP THREE**

#### Attach medium angle bracket

- Attach Medium Angle Bracket to the internal face of Part B as shown
- Ensure bracket is hard against the corner
- Ensure bottom external face of bracket is flush with the top faces of Parts A and B as shown
- Secure in place using 2x 10mm Screws

# Leg Assembly



# **4** STEP FOUR

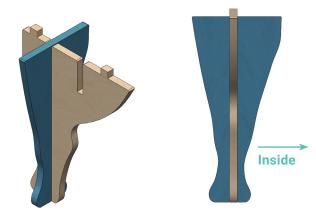
# Repeat Steps 1-3

- Repeat steps 1 to 3, mirroring the first Leg
- Take note of the orientation of the parts





Locate leg part c

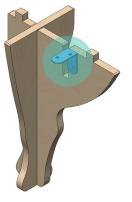


# 6 STEP SIX

### Slot in leg part D

- Slot Leg Part D into Part C as shown
- Take note of orientation of Part D

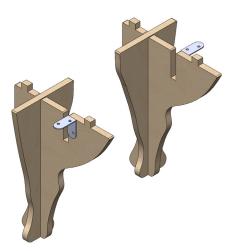




# STEP SEVEN

#### Attach Medium Angle Bracket

- Attach Medium Angle Bracket to external face of Part C
- Ensure bracket is aligned as indicated in diagram
- Secure in place using 2x 10mm Screws



# **8 STEP EIGHT**

#### Repeat Steps 5 - 7

- Repeat steps 5 7 mirroring the previous leg
- Take note of the orientation of the parts



# Bottom Cage Assembly





# Bottom Cage Assembly



# **1** STEP ONE

#### Lay out part A of bottom cage

- Lay out the pieces for the Bottom Cage Assembly on the floor, starting with Part A
- Ensure the brass insert flanges are facing up



# 2 STEP TWO

#### Locate part C

• Locate Part C onto Part A as shown



# **3 STEP THREE**

#### Locate part D

• Locate Part D onto Part A as shown



# Bottom Cage Assembly



# **4** STEP FOUR

#### Locate part E

• Locate Part E onto Part A as shown



# 5 STEP FIVE

#### Locate part F

• Locate Part F onto Part A as shown



# 6 STEP SIX

#### Locate part G

- Attch small and medium bracket to part C and part E
- Locate Part G onto the central slots of Parts C through to F as shown

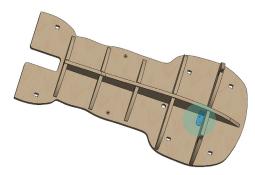




# 7 STEP SEVEN

#### Locate part B

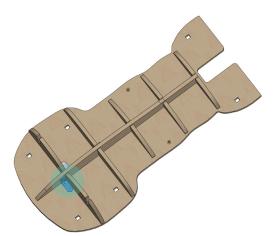
Interlock Part B at the front of Part G



# 8 STEP EIGHT

#### Attach medium angle bracket

- Attach Medium Angle Bracket as shown to be hard into the corner against Parts F and G
- Secure in place using 4x 10mm Screws



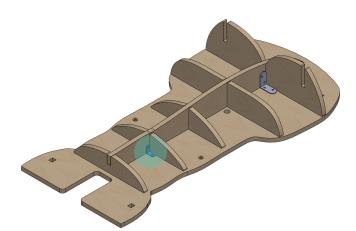
# 9 STEP NINE

#### Attach medium angle bracket

- Attach Medium Angle Bracket as shown to be hard into the corner against Parts F and G
- Secure in place using 4x 10mm Screws



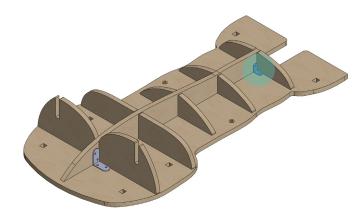
# Bottom Cage Assembly



# **10 STEP TEN**

#### Attach small angle bracket

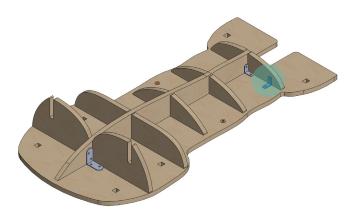
- Attach Small Angle Bracket into the corner of Part C and G as shown.
- Secure in place using 2x 10mm Screws



# **11** STEP ELEVEN

#### Attach small angle bracket

- Attach Small Angle Bracket into the corner of Part B and G as shown
- Secure in place using 2x 10mm Screws



# **12 STEP TWELVE**

#### Add small angle bracket

- Add Small Angle Bracket as shown to secure Part B to Part A.
- Secure in place using 2x 10mm Screws





#### **13 STEP THIRTEEN**

#### Repeat on opposite side

- Add a second Small Angle Bracket to the opposite side of Part B
- Secure in place using 2x 10mm Screws

# **14** STEP FOURTEEN

#### Slot the Front Right Leg into the Base

- Fasten the leg to the base by securing it with 2x 10mm Screws through the Medium Angle Bracket, previously attached to the internal face of the leg as shown.
- Check Diagram for correct orientation

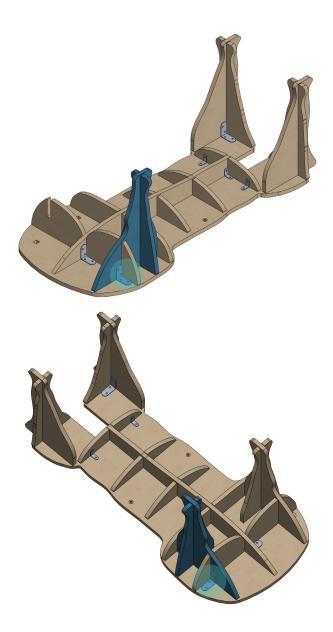
# **15 STEP FIFTEEN**

#### Repeat on opposite side

• Repeat previous step on opposite side with the front left leg



# Bottom Cage Assembly



# **16 STEP SIXTEEN**

#### Locate back Left leg

- Locate back left leg assembly as shown, interlocking it with the base assembly
- Secure the bracket in place using 2x 10mm Screws

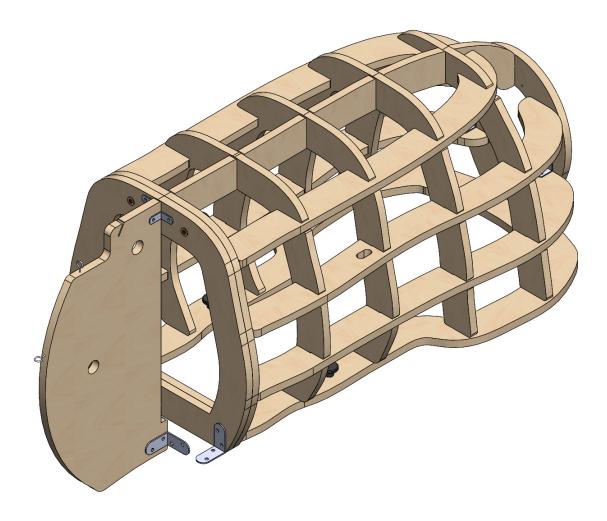
# **17** STEP EIGHTEEN

#### Repeat previous step on opposite side

- Locate back right leg assembly as shown, interlocking it with the base assembly
- Secure the bracket in place using 2x 10mm Screws

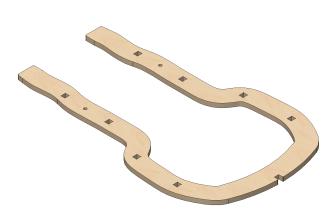


# Top Assembly





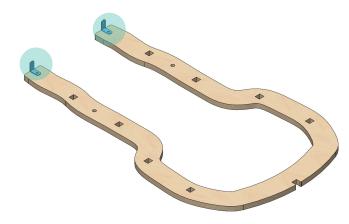
# Top Cage Assembly



# **1** STEP ONE

#### Lay down Top cage Part A

• Lay out the pieces for the Top Cage Assembly on the floor, starting with Part A.



# **2** STEP TWO

#### Attach small angle brackets

- Using 2x 10mm Screws, attach a small angle bracket to each side of Part A, on the open end
- Ensure the upright outer face of the angle bracket is flush with the end face of Part A



### **3 STEP THREE**

#### Locate Part E onto Part A

• Lock in Part E as shown





# • Lock in Part F as shown

Locate Part F onto Part A

**4** STEP FOUR



#### Locate Part G onto Part A

• Lock in Part G as shown



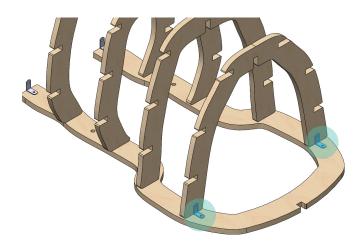
### 6 STEP SIX

#### Locate Part H onto Part A

• Lock in Part H as shown



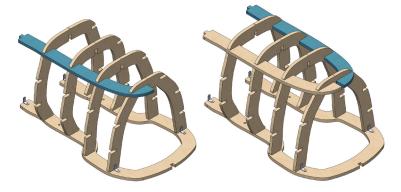
# Top Cage Assembly



#### 7 STEP SEVEN

#### Attach small angle brackets

• Using 4x 10mm screws attach 2x small angle brackets as shown in diagram

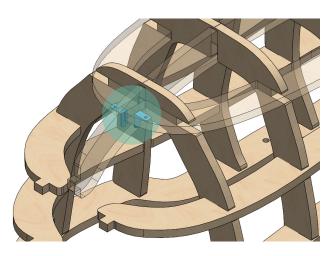


# 8 STEP EIGHT

•

#### Locate part J

Repeat on opposite side Add the second. Part J to the opposite side of the Top Cage

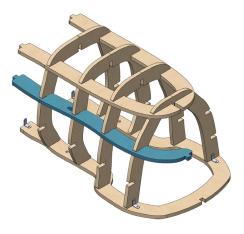


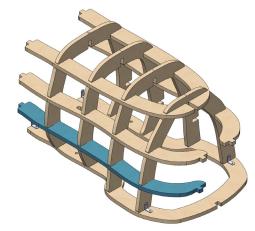
# **9** STEP NINE

#### Attach small angle brackets

- Using 4x 10mm Screws attach 2x Small Angle Brackets on the underside of Parts K to M
- Refer to diagram and make sure to offset brackets so the screws do not interfere with each other







# **10** STEP TEN

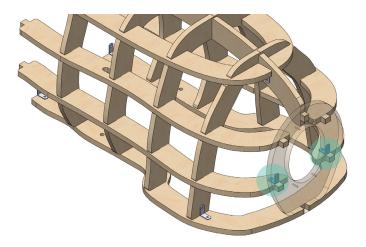
#### Locate part K.

• Repeat on opposite side with second part K

**11** STEP ELEVEN

#### Locate part L

- Locate Part L as shown on one side of the arches
- Add the second Part L to the opposite side of the Top Cage



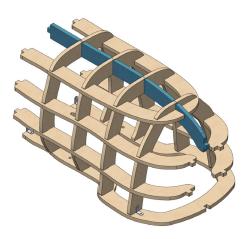
# **12 STEP TWELVE**

#### Attach small angle brackets

- Using 4x 10mm Screws attach 2x Small Angle
  Brackets to part I and L
- Refer to diagram for correct orientation



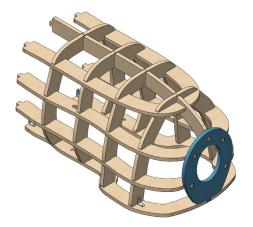
# Top Cage Assembly



# **13 STEP THIRTEEN**

#### Locate part M

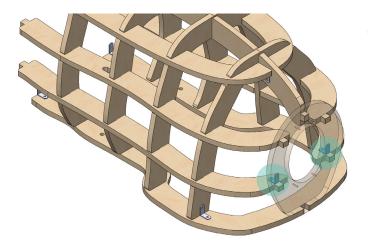
• Locate Part M into the central slots of the underside of the arches as shown.



### **14 STEP FOURTEEN**

#### Locate part I

• Locate Part I onto the back end of the Top Cage as shown.

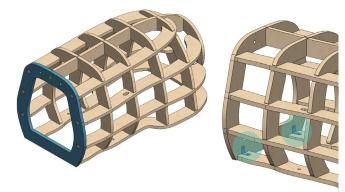


# **15 STEP FIFTEEN**

#### Fix in the small angle brackets

- Using 4x 10mm Screws attach 2x Small Angle
  Brackets to part I and L
- Refer to diagram for correct orientation





### **16 STEP SIXTEEN**

#### Locate part D

- Locate Part D onto the front end of the Top Cage as shown
- Using 2x 10mm Screws attach the brackets on the inner side of part D and A as per diagram

# **17** STEP SEVENTEEN

#### Attach small angle brackets

- Using 4x 10mm Screws attach 2 Small angle brackets to both parts J and D
- Refer to diagram for correct orientation



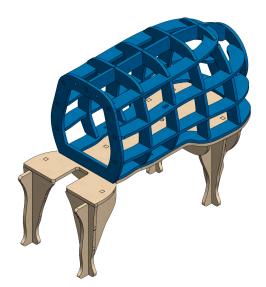
# **18 STEP EIGHTEEN**

#### Locate Bottom assembly

• Locate Bottom Assembly and stand it up on its feet as shown.



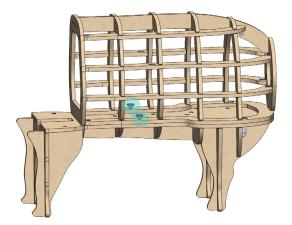
# Top Cage Assembly



### **19 STEP NINETEEN**

#### Locate top assembly

• Locate Top Cage Assembly as shown, matching the curves of the base

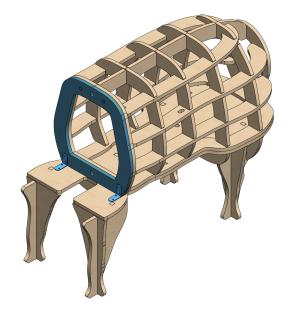


### **20 STEP TWENTY**

#### Secure top assembly

• Secure together using 2x Knurl Screws as indicated in diagram

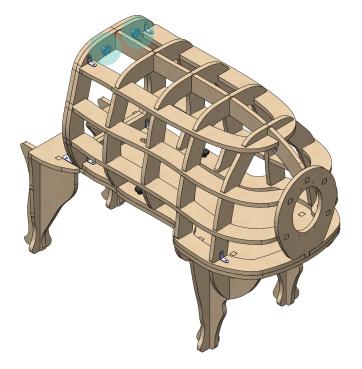




### **21 STEP TWENTY-ONE**

#### Locate Top Cage Part C

- Locate Top Cage Part C in front of the Top Cage, and secure in place with 2 x Medium Angle Brackets as shown, using 8x 10mm Screws to fasten in place
- Check Part C orientation making sure the brass insert flange is facing outwards
- Refer to diagram



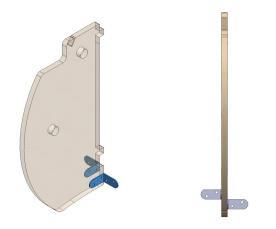
# **21 STEP TWENTY-ONE**

#### Screw in 2x Knurl screws

• Screw in 2x knurl screws as indicated in diagram



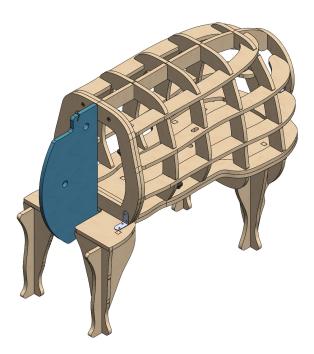
# Top Cage Assembly



# **23 STEP TWENTY-THREE**

# Locate Part B and Attach medium angle bracket

- Attach 2x Medium Angle Bracket to the bottom of Part B using 4x 10mm Screws with one bracket on each side
- Check bracket position is offset to avoid interference between the screws
- Refer to diagram

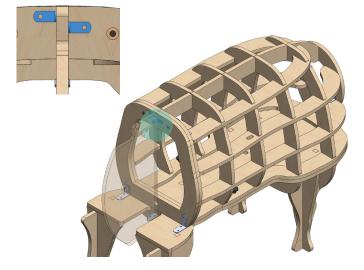


# 24 STEP TWENTY-FOUR

# Place Part B in between the front legs, against the face of Part C

Refer to diagram for correct orientation

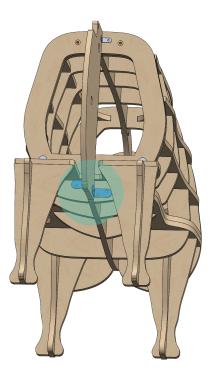




### **25 STEP TWENTY-FIVE**

#### Attach small angle brackets

- Locate 2x Small Angle Brackets as shown, securing the top of Part B to Part C
- Use 4x 10mm Screws to secure in place
- Make sure to offset brackets to avoid interference between the screws
- Refer to diagram for correct locations



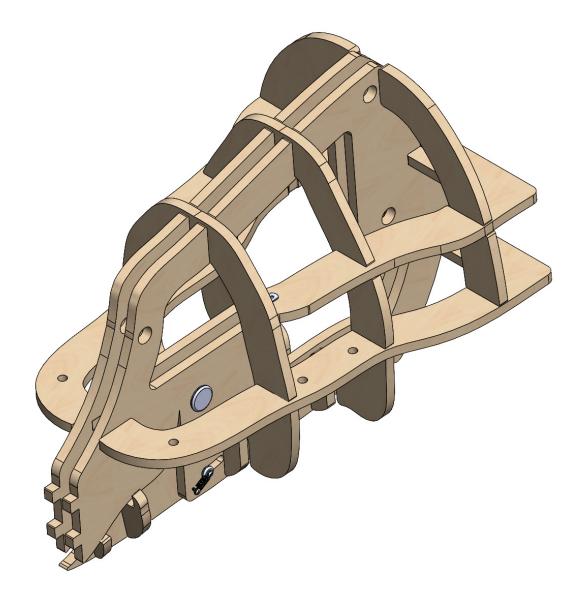
# **26 STEP TWENTY-SIX**

#### Secure part B bases

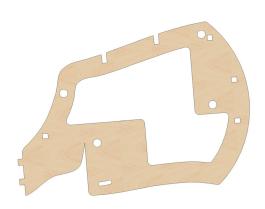
• Secure the brackets at the base of Top Cage Part B to the Bottom Cage Part B using 4x 10mm Screws



# Head Assembly



# Head Assembly



# STEP ONE

#### Locate head part A

• Locate Head Part A



#### STEP TWO

2

#### Locate second Part A

• Locate second Part A and line up the slots and holes.



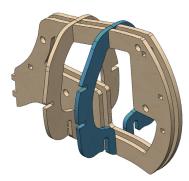
# **3** STEP THREE

#### **Insert head Part B**

• Slot in Head Part B as shown.



# Head Assembly



# 4 STEP FOUR

#### Insert head part C

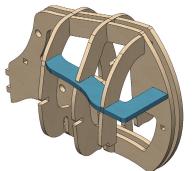
• Slot in Head Part C as shown.



# 5 STEP FIVE

#### Insert head part D

• Insert Head Part D onto one side of the head as shown.

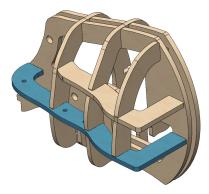




# Locate Part E

• Locate Part E into the highest slots of Parts C to D.

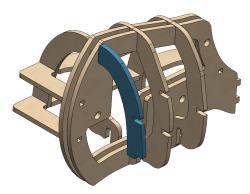




# **7** STEP SEVEN

#### Locate Part F

• Locate head Part F into the lower slots of Parts B to D.



# **STEP EIGHT**

8

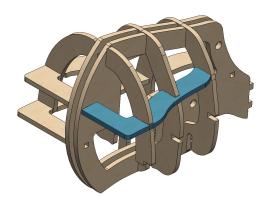
#### Locate second Part D

• Locate the second Part D piece onto the opposite side of the head.

9 STEP NINE

#### Locate second part E

• Locate the second Part E piece into the top slots as shown.





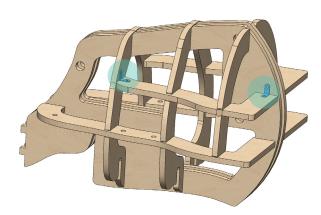
# Head Assembly

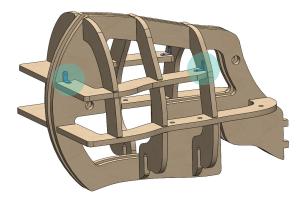


# **10** STEP TEN

#### Locate second Part F

• Locate second Part F into the lower slots of Parts B to D as shown.





# Locate 2x Small angle brackets

**STEP ELEVEN** 

11

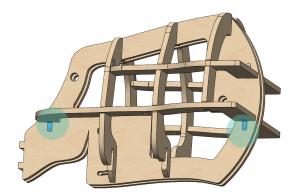
- Locate the 1st small angle bracket onto the top of Part E, securing it to the back face of Part B using 2x 10mm Screws
- Locate the 2nd small angle bracket onto the top of Part E, securing to the outer face of Part A using 2x 10mm Screws
- Refer to diagram

### STEP TWELVE

#### Repeat on opposite side

- Locate the 1st small angle bracket onto the top of Part E, securing it to the back face of Part B using 2x 10mm Screws
- Locate the 2nd small angle bracket onto the top of Part E, securing to the outer face of Part A using 2x 10mm Screws
- Refer to diagram

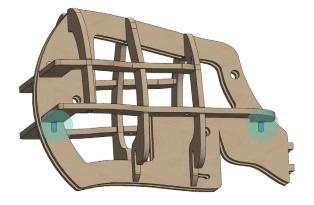




#### **13** STEP THIRTEEN

#### Attach small angle brackets

 Attach 2x Small Angle Brackets using 4x 10mm Screws to the front and back points of where Part F meets Part A as shown



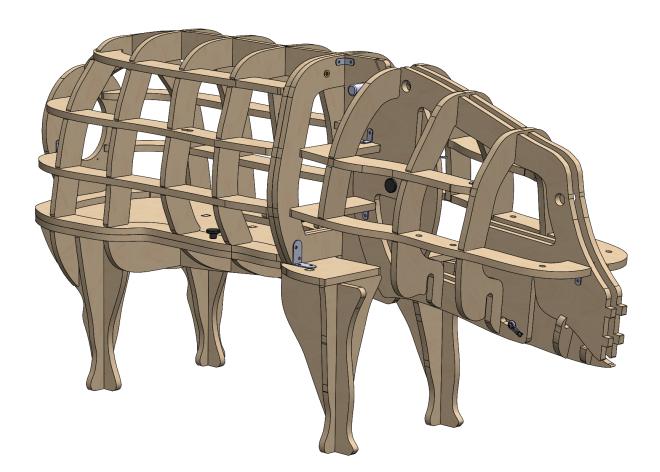
### **14** STEP FOURTEEN

#### Repeat on opposite side

 Add two more Small Angle Brackets using 4x 10mm Screws to the opposite side of the head, connecting both front and back ends of Part F to A.



# Jaw & General Assembly





# Jaw Assembly



### STEP ONE

#### Locate jaw part A

• Locate Jaw Part A and orientate as shown.



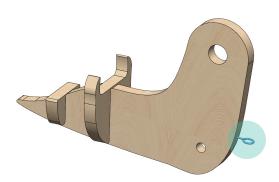
# 2 STEP TWO

### Insert jaw Part B & C

• Slot Jaw Part B and C into A as shown.



# Jaw Assembly



# **3** STEP THREE

#### Insert eyelet guide

• Insert an Eyelet Guide into the back of the Jaw Part A as shown.



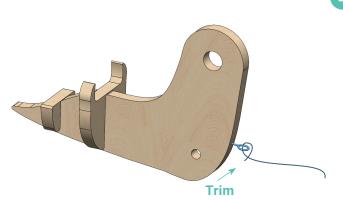
#### Tie nylon line onto jaw

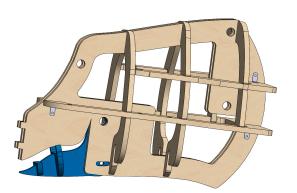
- Tie one end of the Nylon Line onto the Eyelet using a secure, tight knot.
- Leaving the longest length for later, trim the short excess nylon, leaving about 5 -10mm remaining.

STEP FIVE

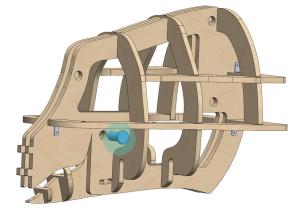
#### Insert jaw into head

• Slide the Jaw Assembly in between the two main face plates of the head of the pig as shown and line up the holes.







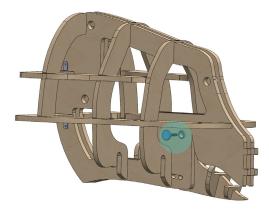


#### **STEP SIX**

6

#### Insert jaw rotation dowel

• Insert large rotational dowel into through the large hole in the top of Jaw Part A.



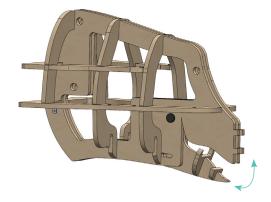
# **STEP SEVEN**

#### Screw in knurl screw

 Screw in a M6 Knurl Screw into the other side of the dowel, into the threaded insert.

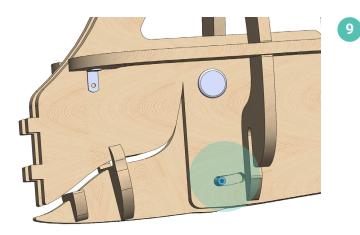


• Check the jaw moves up and down freely.





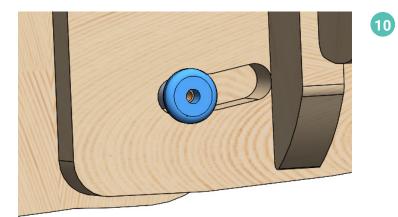
# Jaw Assembly



#### STEP NINE

#### Insert small jaw dowel

• Insert small jaw dowel into the lower hole in Jaw Part A, and where the slot is in the main face plate of the pig head.

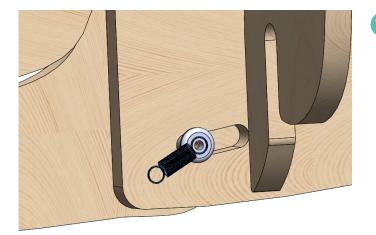


### STEP TEN

#### Locate the dowel plate

• Locate the dowel plate at one end of the jaw dowel.

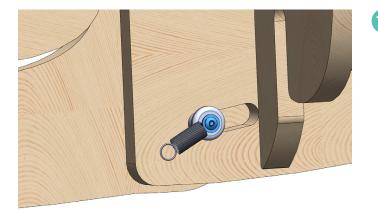




#### **STEP ELEVEN**

#### Locate the spring

• Locate one loop of the jaw spring over the hole in the dowel plate.



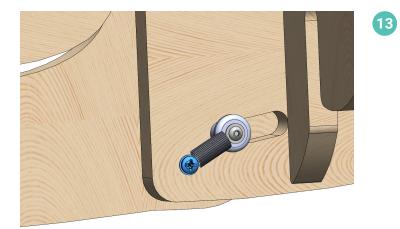
#### **12** STEP TWELVE

#### Secure with bolt & washer

• Secure the spring in place with an M3 flat washer and M3 button head bolt, screwing it into the threaded insert in the jaw dowel.



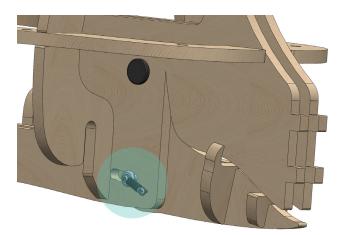
# **General** Assembly



#### STEP THIRTEEN

#### Screw in the other spring end

• Close the jaw then fasten the other end of the spring to the main face plate of the pig head using a 10mm screw and M3 flat washer.



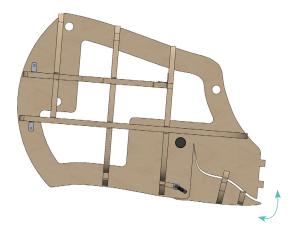
# **STEP FOURTEEN**

14

#### Repeat on opposite side

• Repeat steps 22 through to 25 on the other side of the jaw/head.

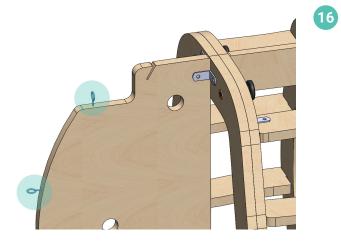




### **15** STEP FIFTEEN

#### Check jaw movement

• Check the movement of the jaw. It should close back by itself when opened.



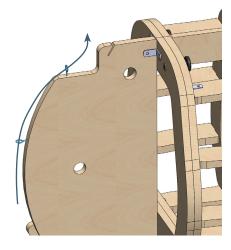
#### STEP SIXTEEN

# Insert eyelet guides

• Insert 2 x Eyelet Guides into the edge face of Part B of the Top Cage as shown.



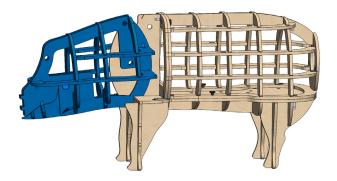
# **General** Assembly



# **17** STEP SEVENTEEN

#### Thread the nylon

- Take the long end of the Nylon that is attached to the jaw.
- Thread the Nylon through the eyelets from the bottom to the top.
- NOTE: You will need to hold the head assembly close to the body for this part.

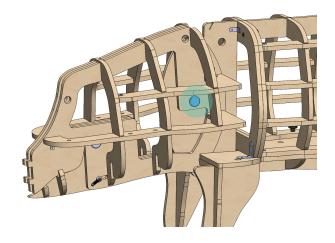


# **18 STEP EIGHTEEN**

#### Locate head assembly

- Locate the Head Assembly over Top Cage Part B as shown.
- Line up the central hole in the neck.

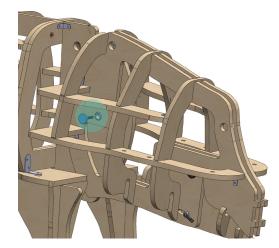




### **19 STEP NINETEEN**

### Insert rotational dowel

• Insert a large rotational dowel in through the central neck hole.



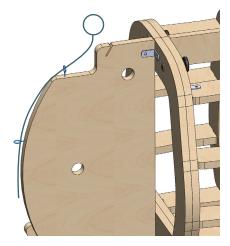


### Secure neck in place

• Use an M6 Knurl Screw to fasten the Head Assembly in place by screwing it into the rotational dowel threaded insert.



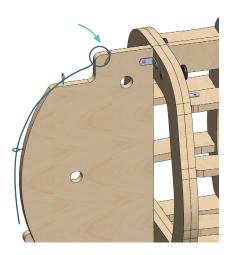
# **General** Assembly



### **21 STEP TWENTY ONE**

Tie a loop at the end of Nylon, while head is down and mouth is open

- Tie a loop roughly 30mm diameter at the end of the nylon.
- Make sure the nylon is pulled tight.

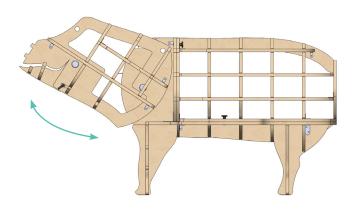


#### **22** STEP TWENTY TWO

#### Loop the nylon over slot

• Secure the Nylon in place by sitting the loop of the nylon over the slot at the top of Top Cage Part B

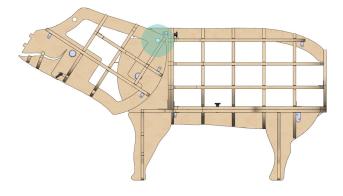




# **23** STEP TWENTY THREE

#### **Check head movement**

- The head should now be able to rotate freely up and down.
- You should notice that the jaw will open and shut as the head is lowered & lifted



### **24** STEP TWENTY FOUR

#### Use the Neck stop

• Use the Neck Stop to hold the pig's head in a raised position by plugging it through the hole in the top of the head when it aligns with the hole in Part B of the Top Cage.



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