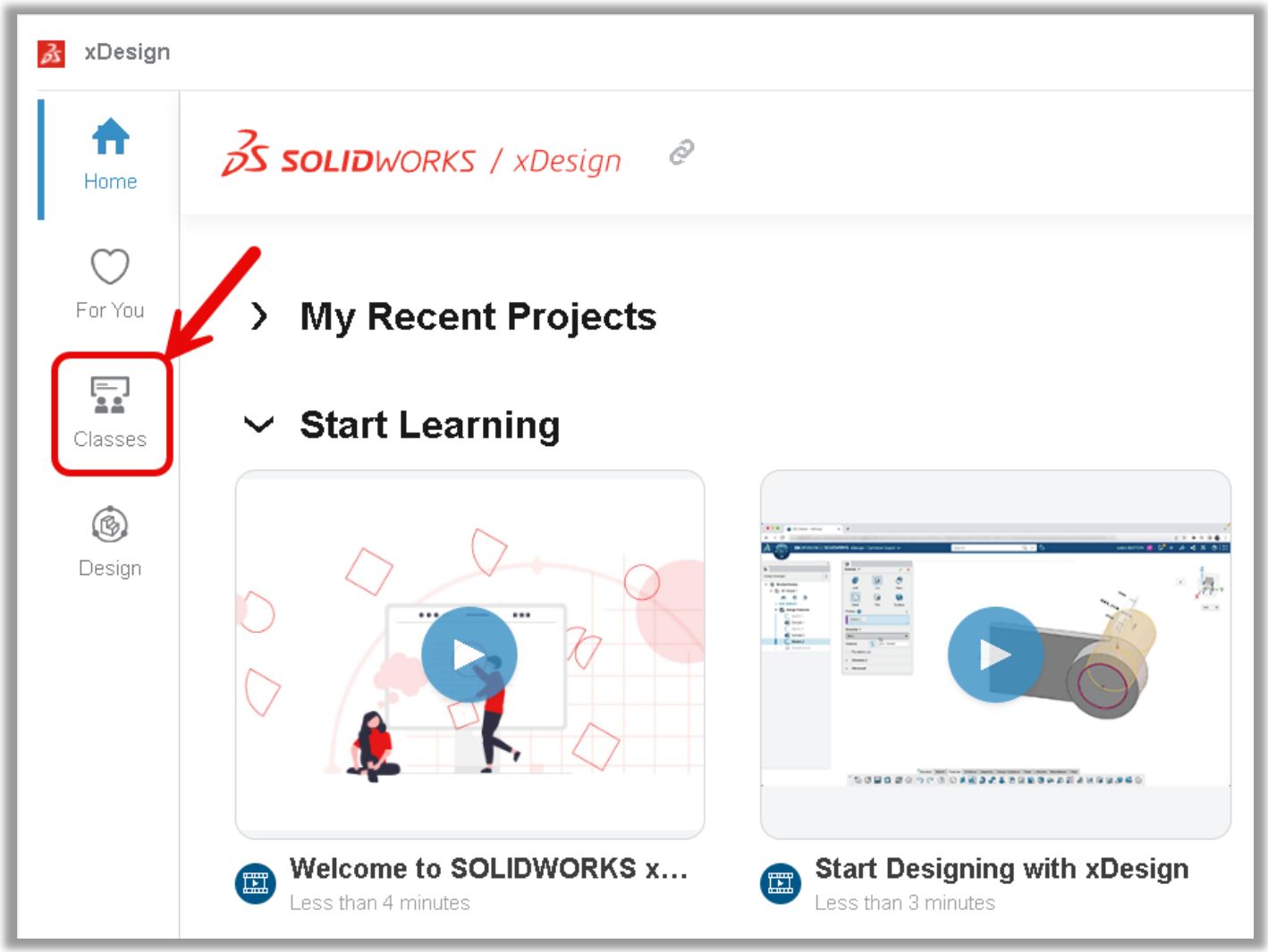
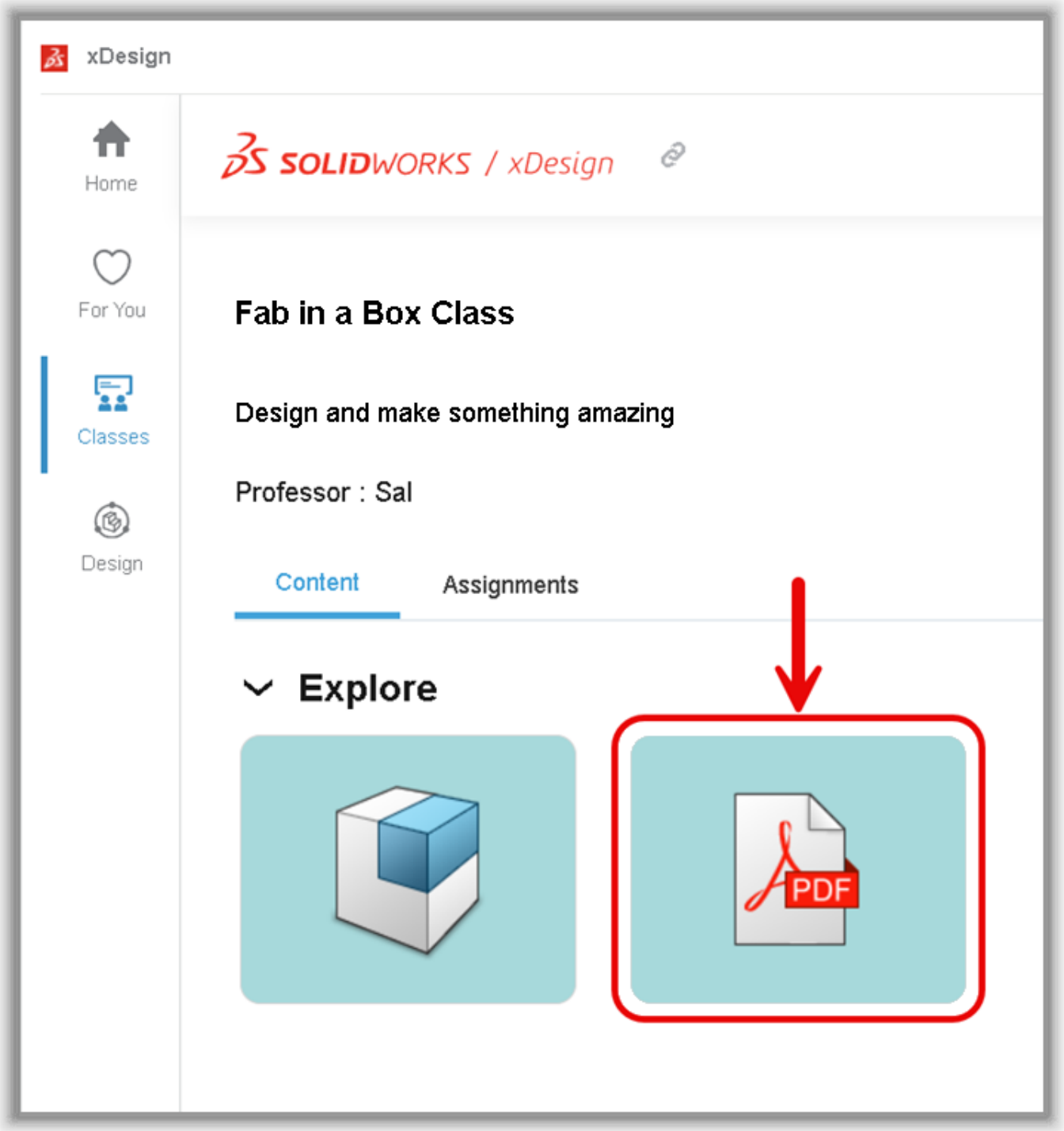
Design and fabricate your own cardboard critters.

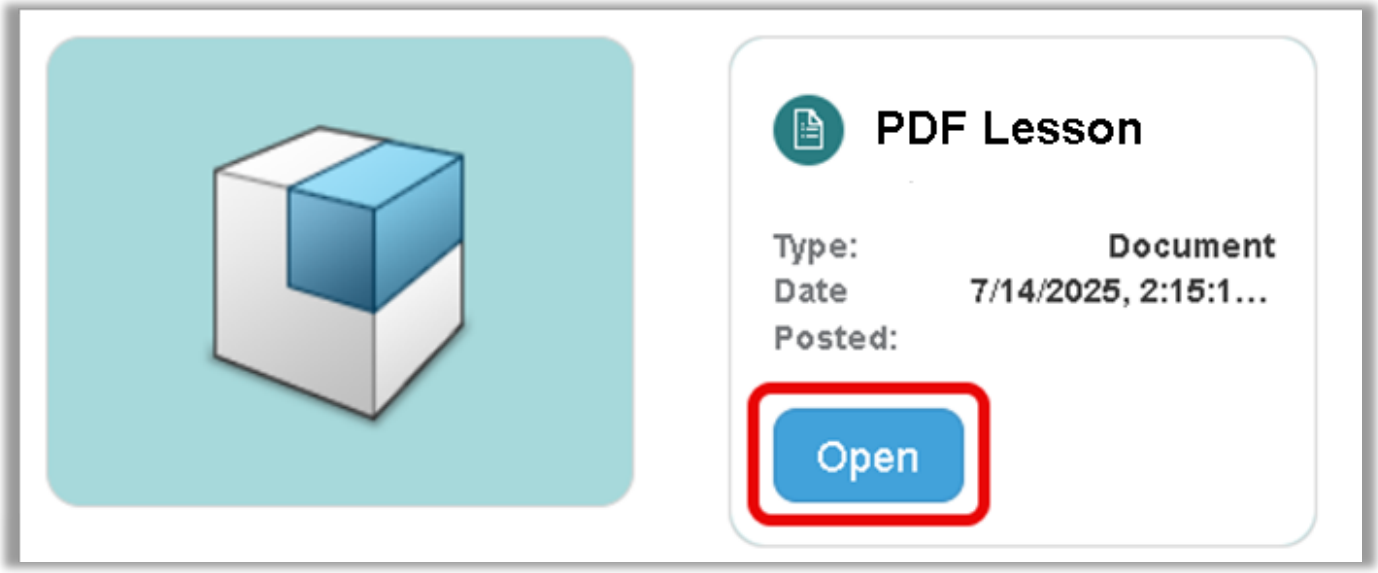
1. Click the **Classes** tab



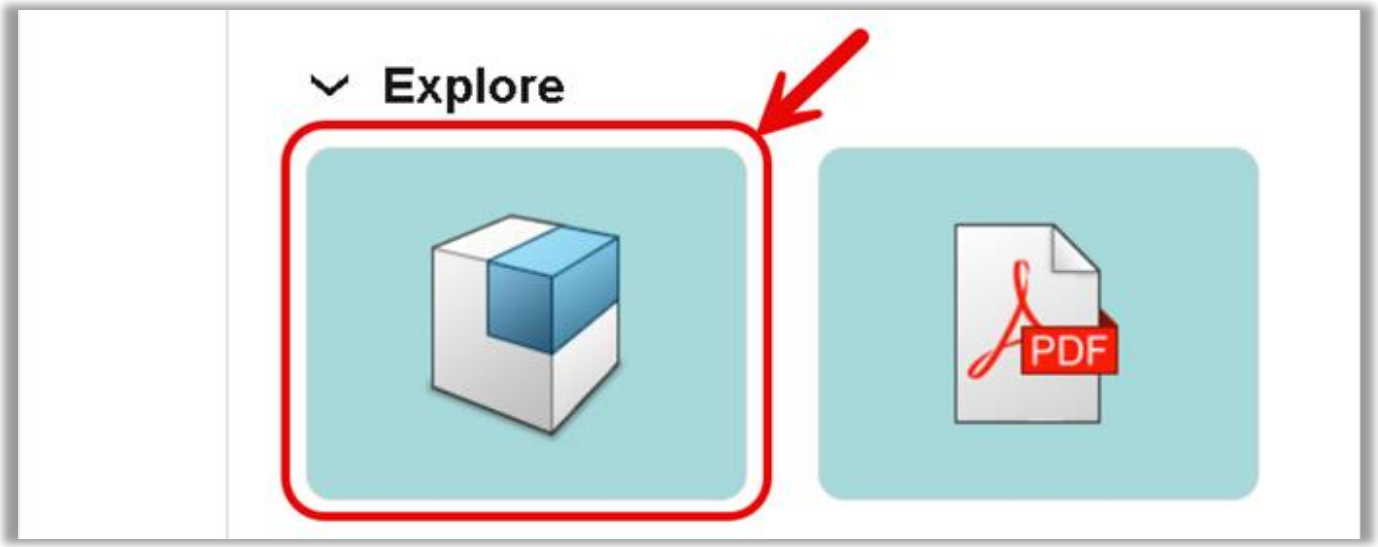
2. Hover over the PDF tile



3. Click **OPEN**



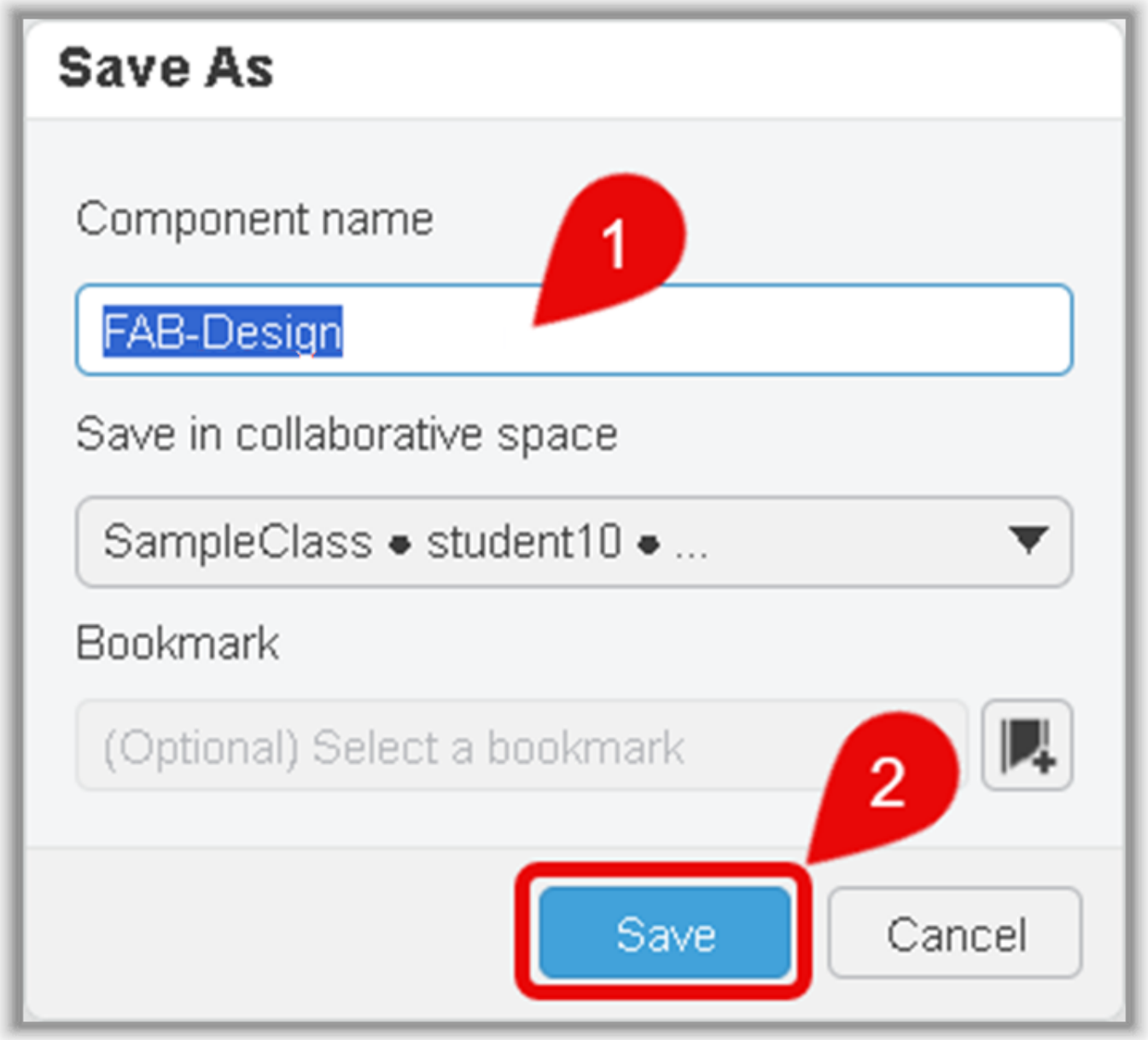
4. Hover over the "**Invention Kits - Cardboard Critters"** tile



5. Click **OPEN**

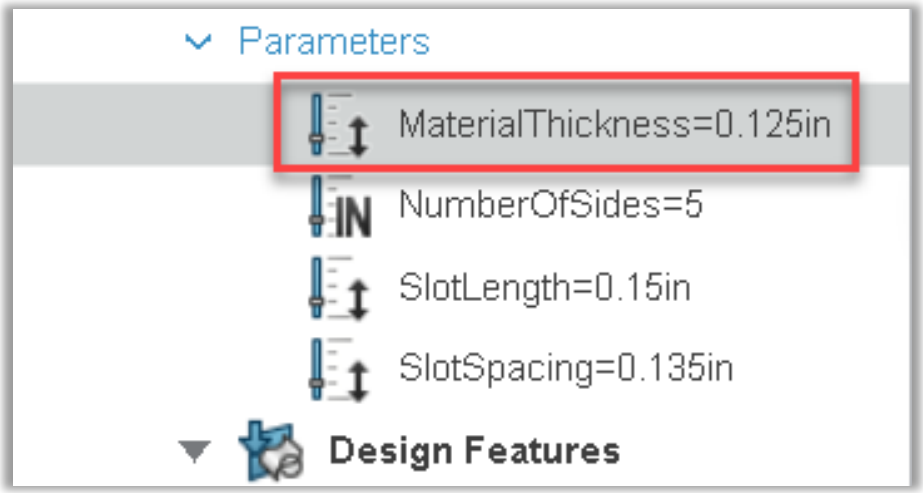
6. Click **Save As** on the Standard tab of the Action Bar

7. [1] Type a name for your design, then [2] click **Save**

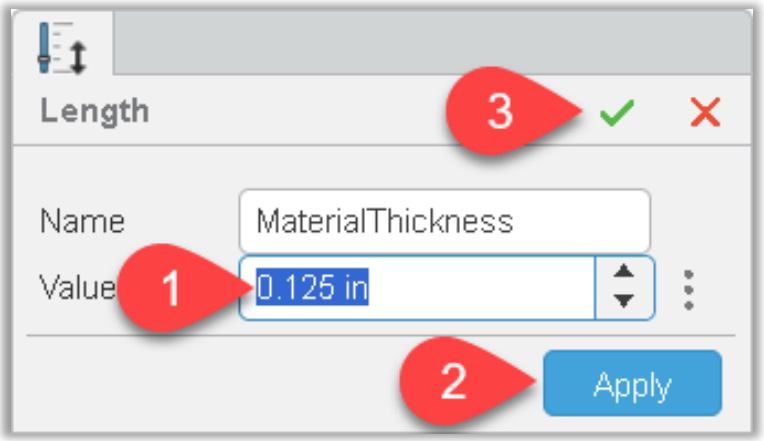


8. Work with your instructor to measure the thickness of the cardboard/foamboard you're using for this lesson.

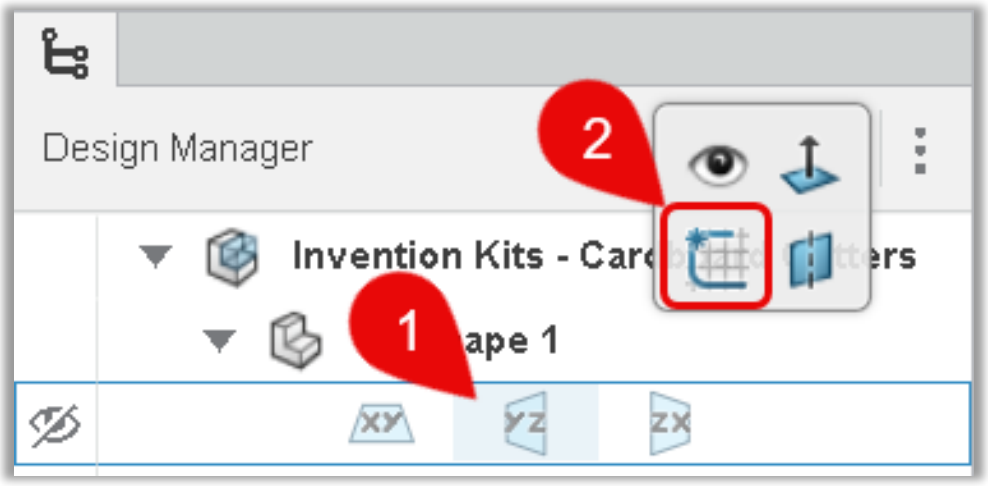
9. Double-click the "MaterialThickness" parameter in the Design Manager



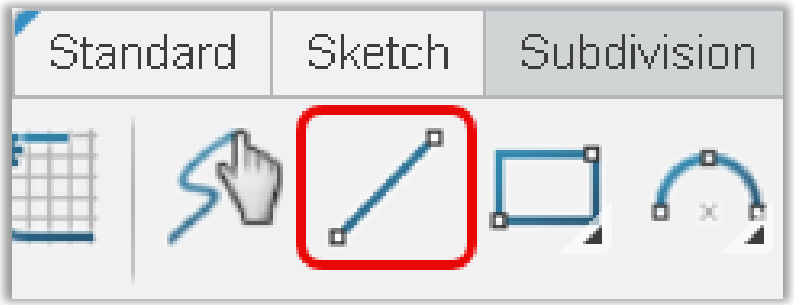
10. [1] Enter the thickness of your cardboard in the "Value" field, [2] Press "Apply" to update the model, [3] Click the OK checkmark to close the dialog



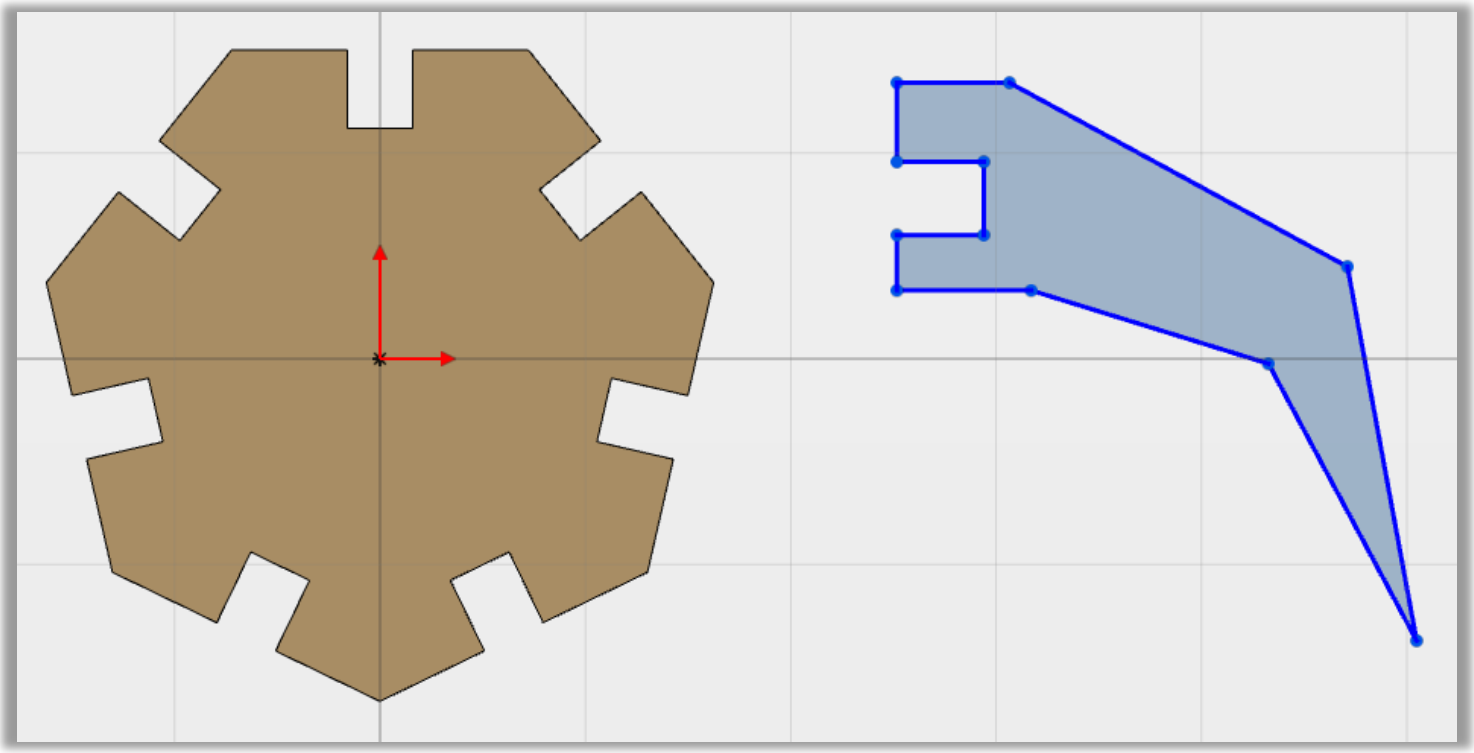
11. [1] Select the **YZ** plane in the Design Manager, then [2] click Create Sketch



12. Click the **Line** tool on the Sketch tab of the Action Bar

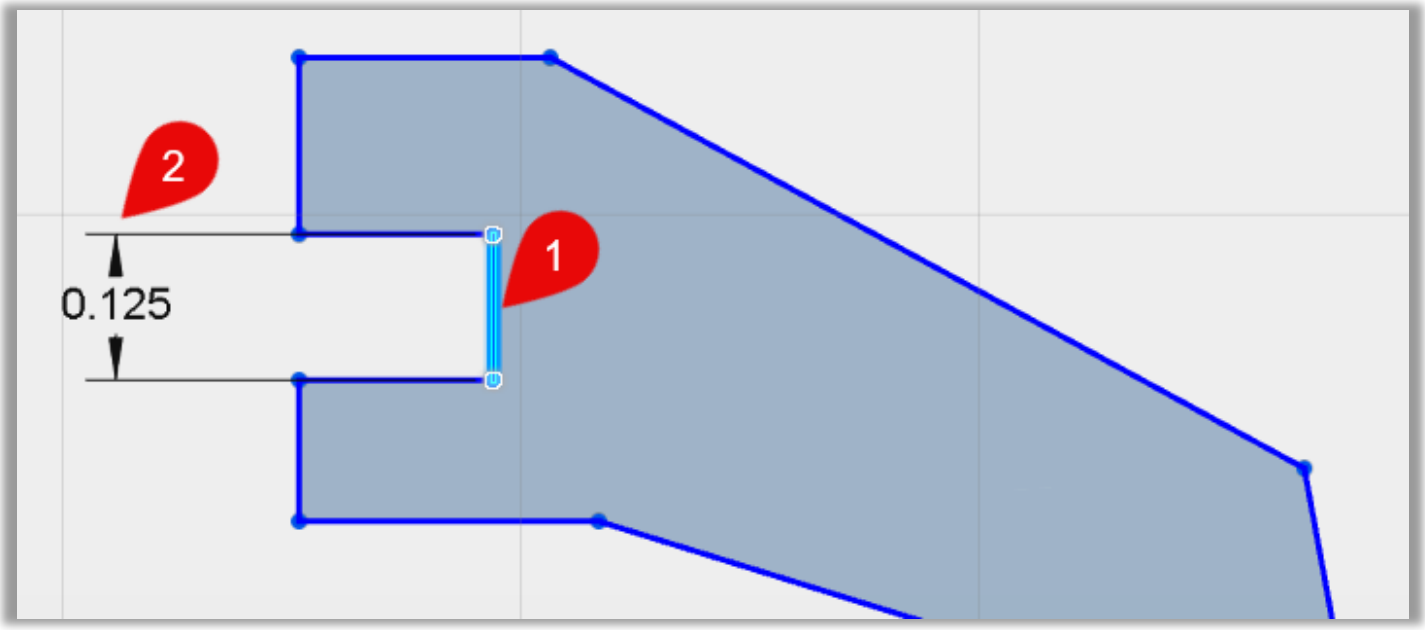


13. Sketch the rough shape of a leg for your critter. The image below is just a sample – yours can be any shape you'd like. *Just be sure to add a slot on one end* so it can attach to your critter's body



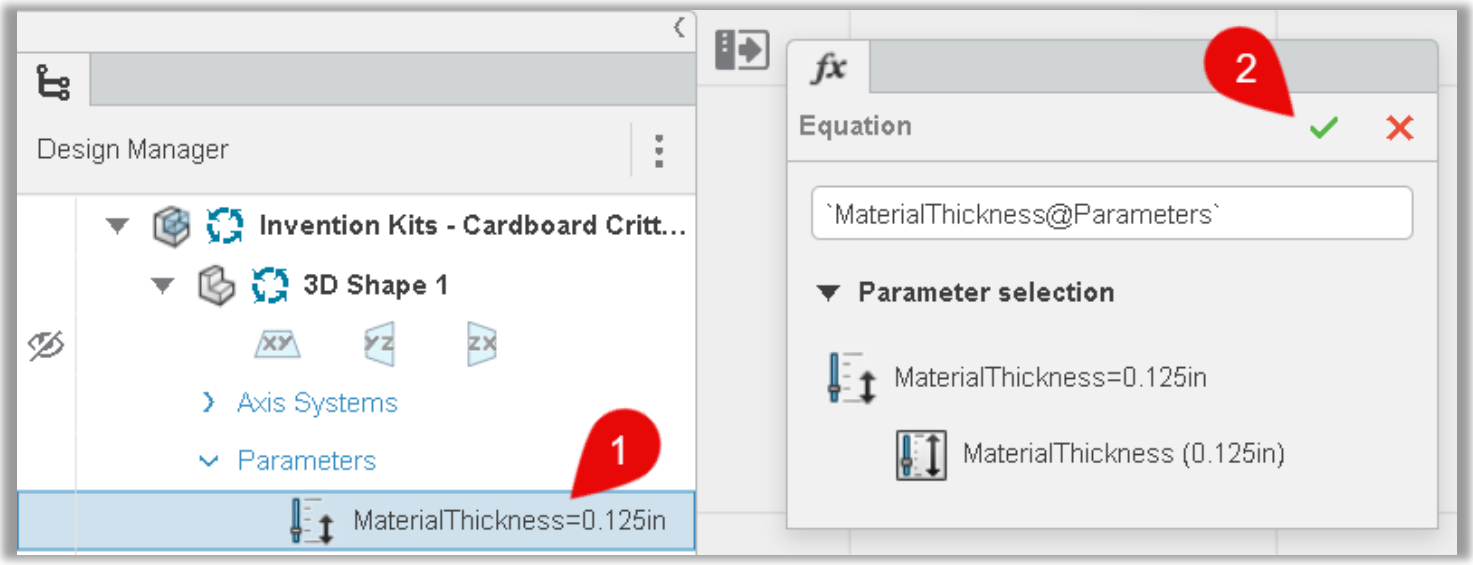
14. Press the letter "D" on the keyboard

15. [1] Select the line that defines the width of your slot, then [2] place the dimension off to the side

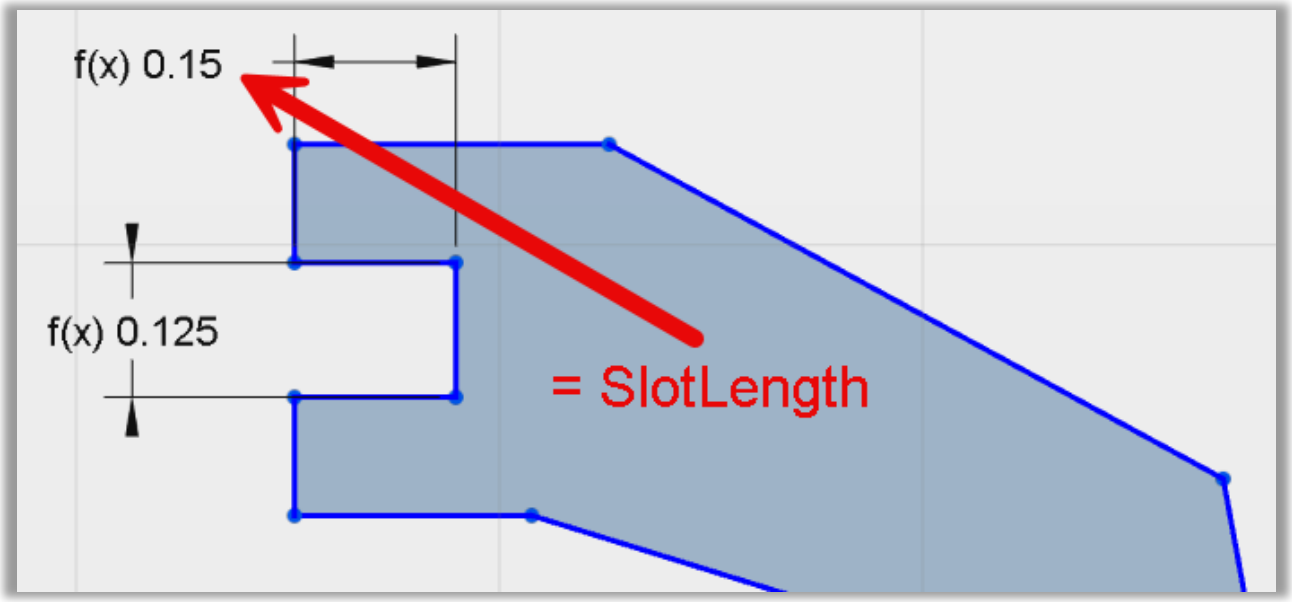


16. Press the “=” key on the keyboard

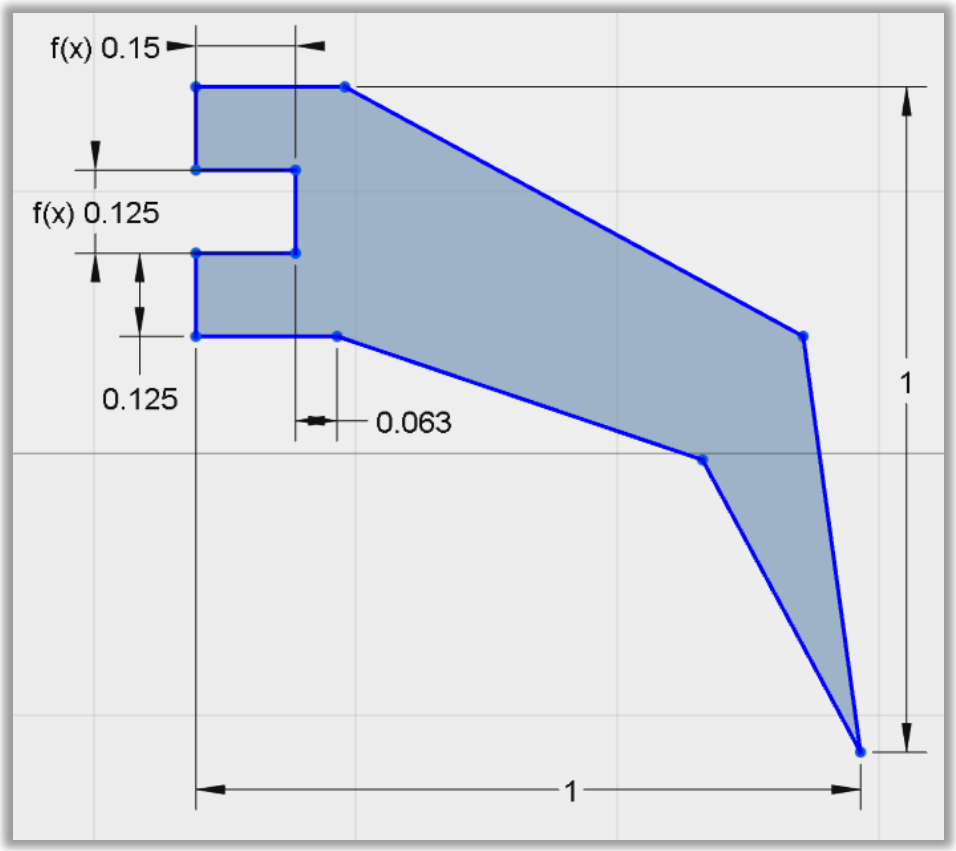
17. [1] Select the “MaterialThickness” parameter from the Design Manager, then [2] click OK in the Equations dialog



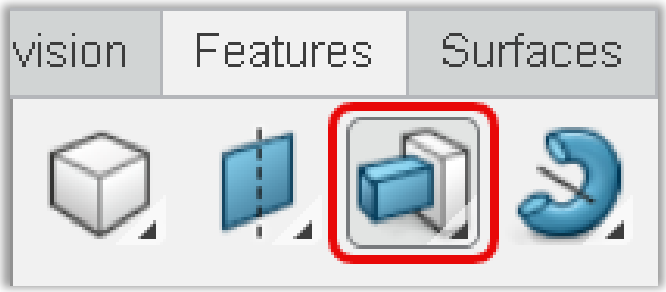
18. Add another dimension that makes the length of the slot equal to the “SlotLength” parameter



19. Add other dimensions or sketch relations to make your leg design match the size and shape you want

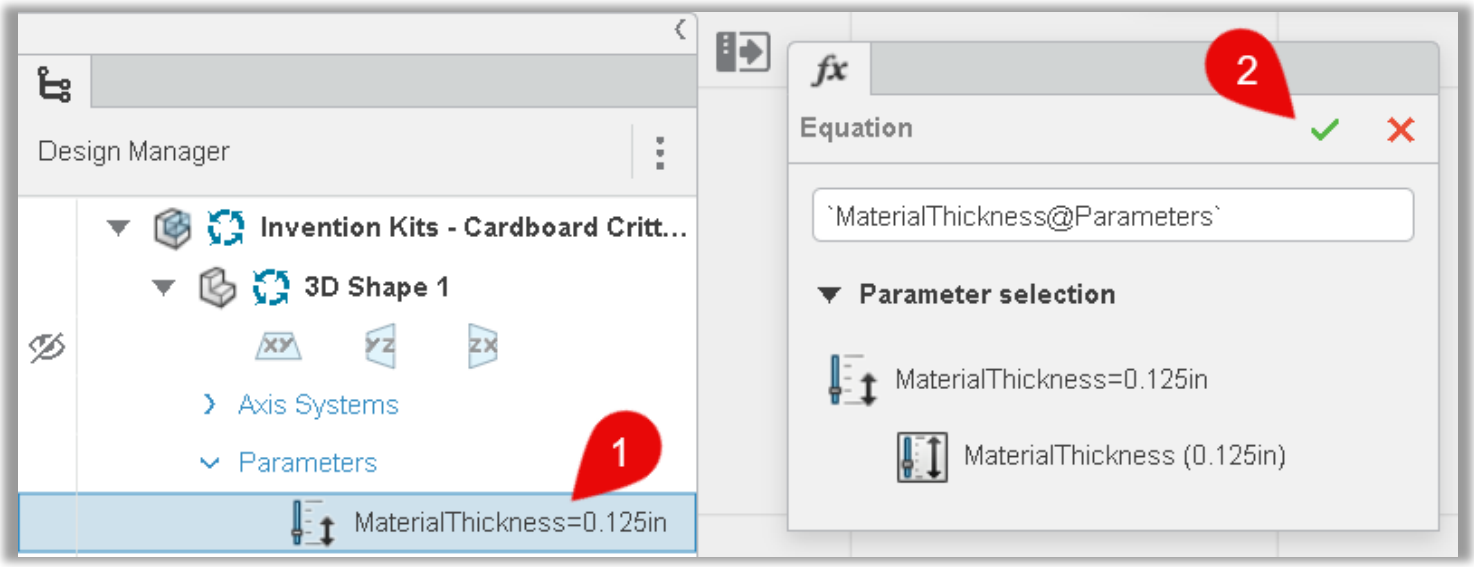


20. Click **Extrude** on the Features tab of the Action Bar



21. Press the "=" key on the keyboard

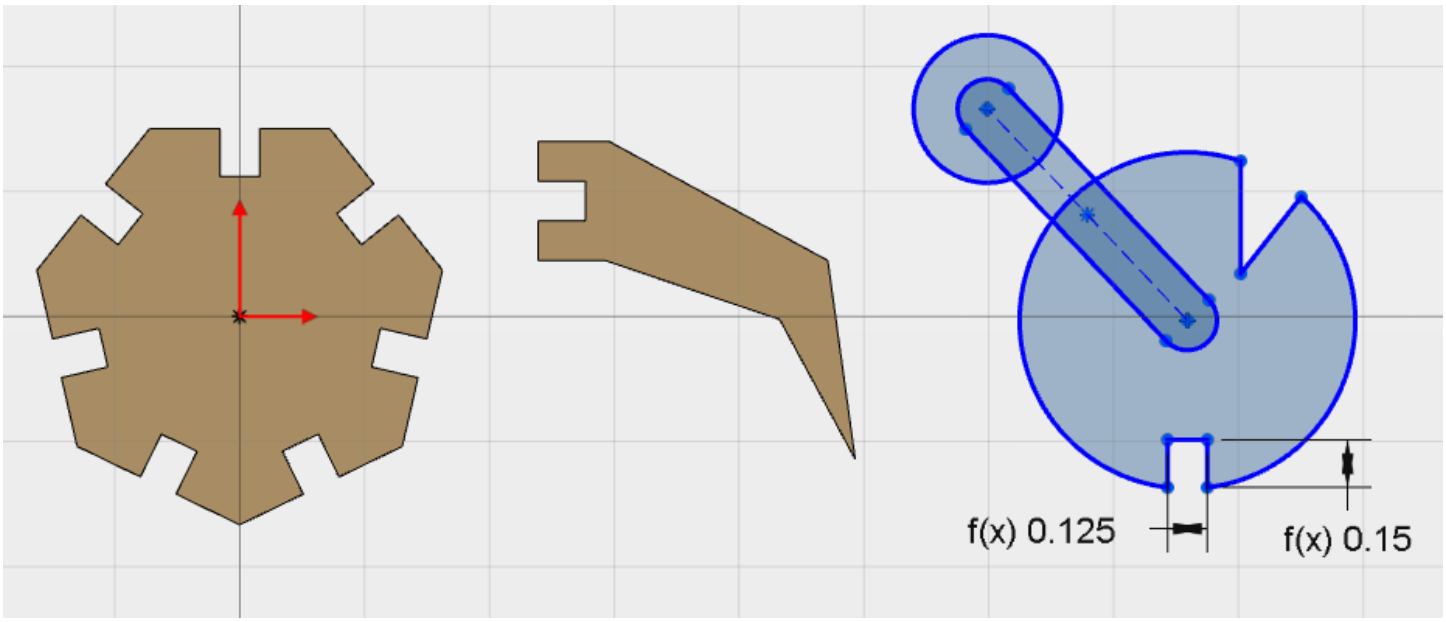
22. [1] Select the "MaterialThickness" parameter from the Design Manager, then [2] click OK in the Equations dialog



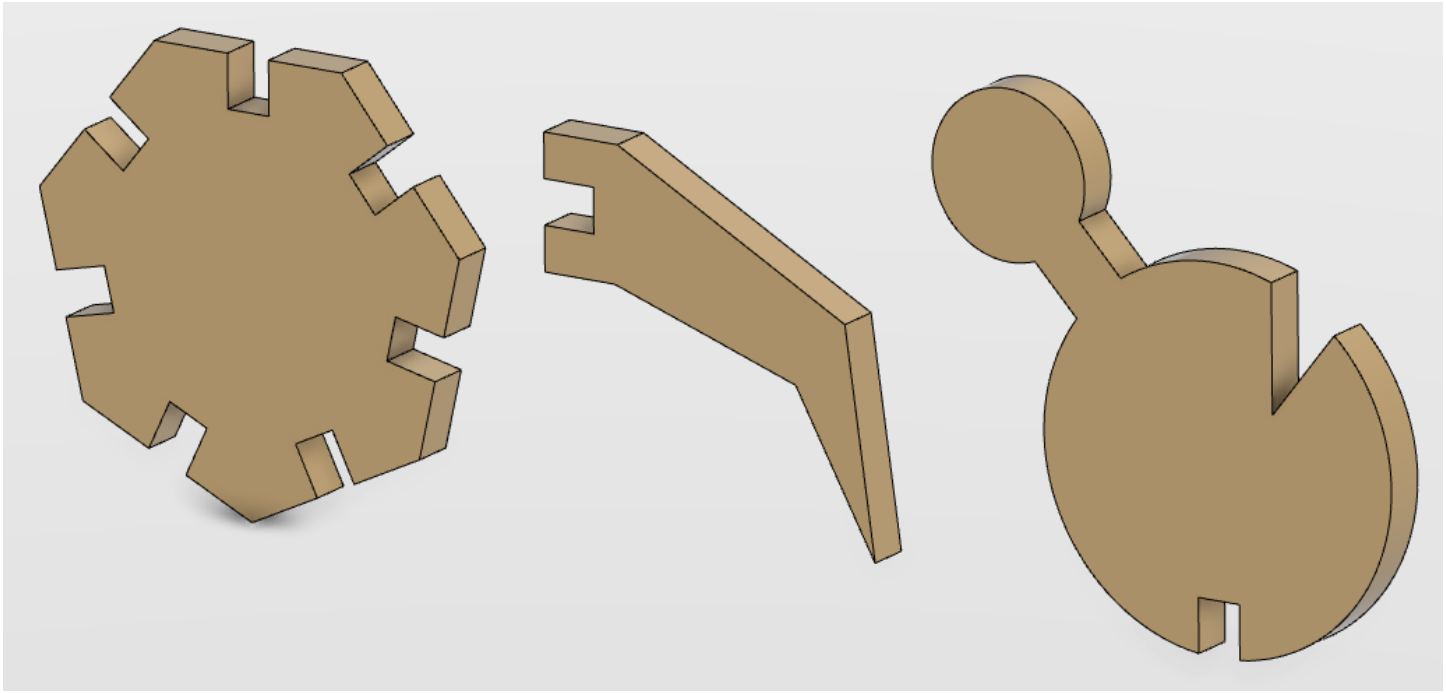
The "Distance" field in the Extrude dialog should now look like this:

23. Click OK to complete the Extrude feature

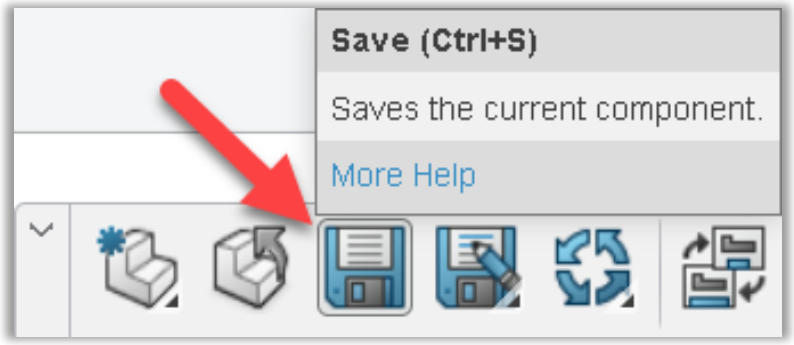
24. Repeat steps 11 through 23 to create another shape for the head of your critter



Your model will now look something like this. Feel free to continue making other parts for your critter.

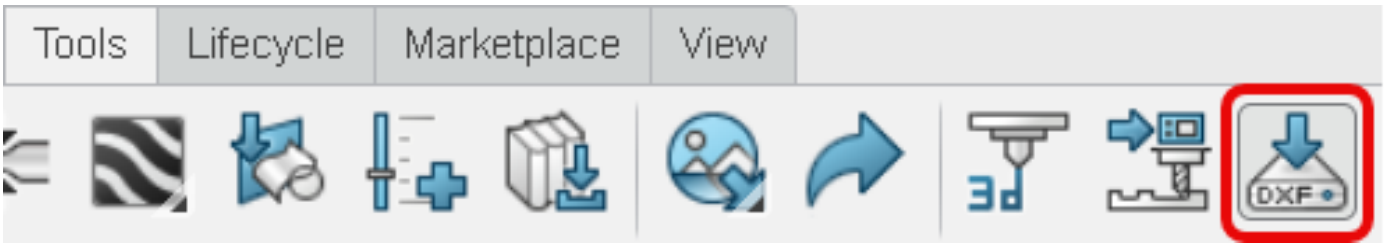


25. When you're done, click "Save" on the Action Bar to save your cardboard critter pieces

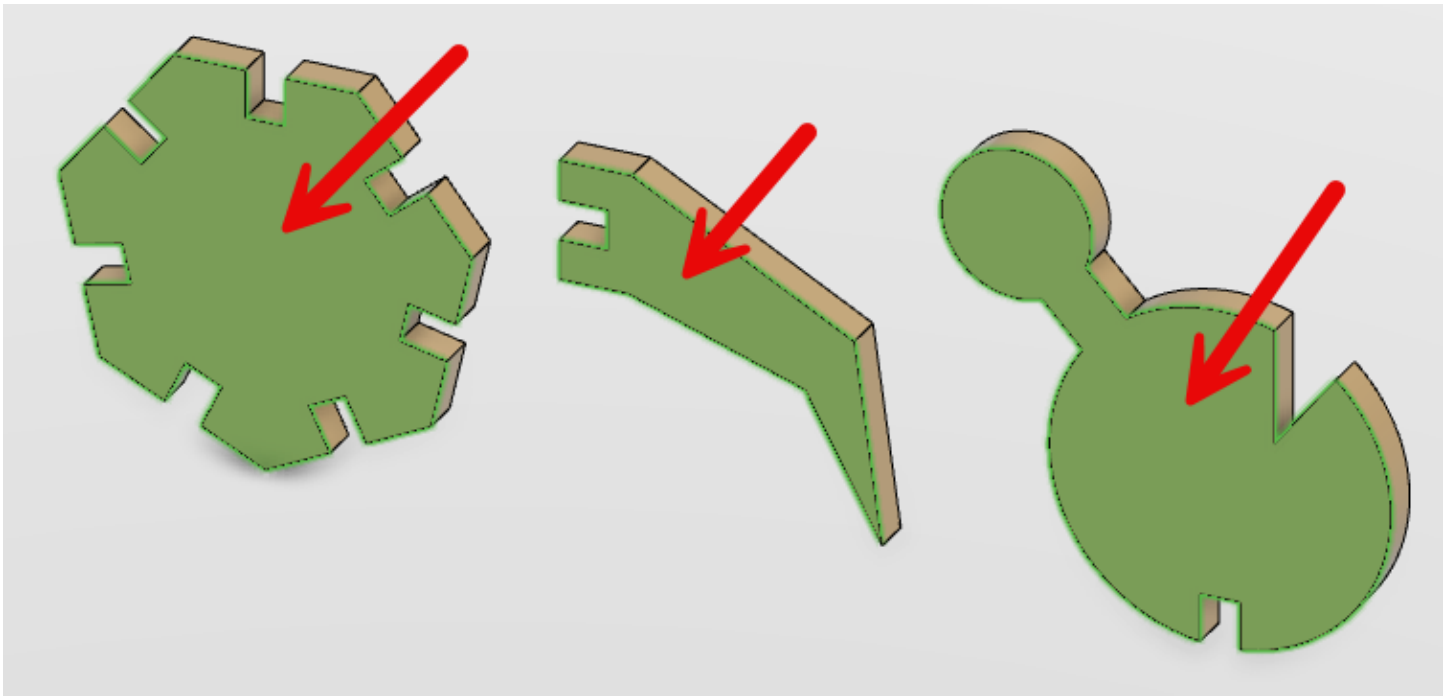


FABRICATE YOUR INVENTION KIT PART

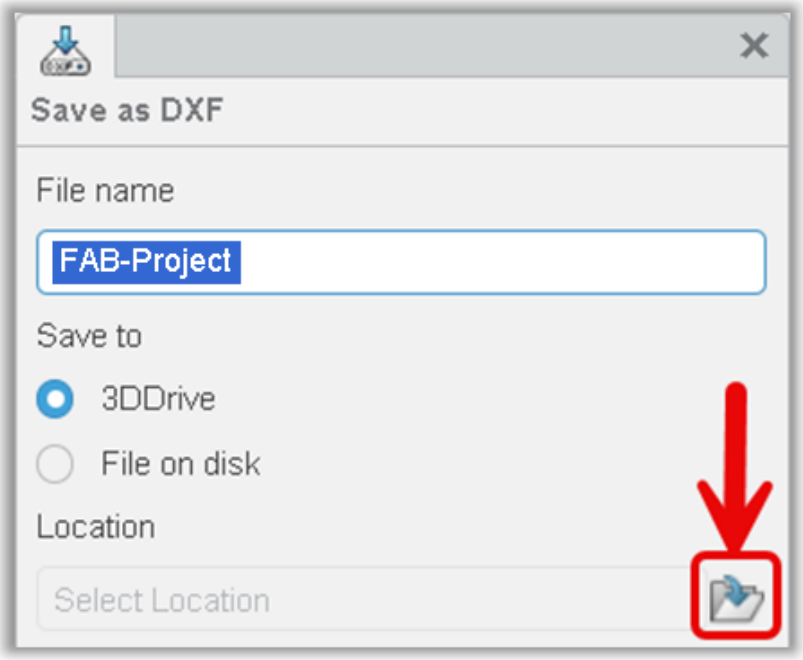
26. Click the **DXF** command on the Tools tab of the Action Bar



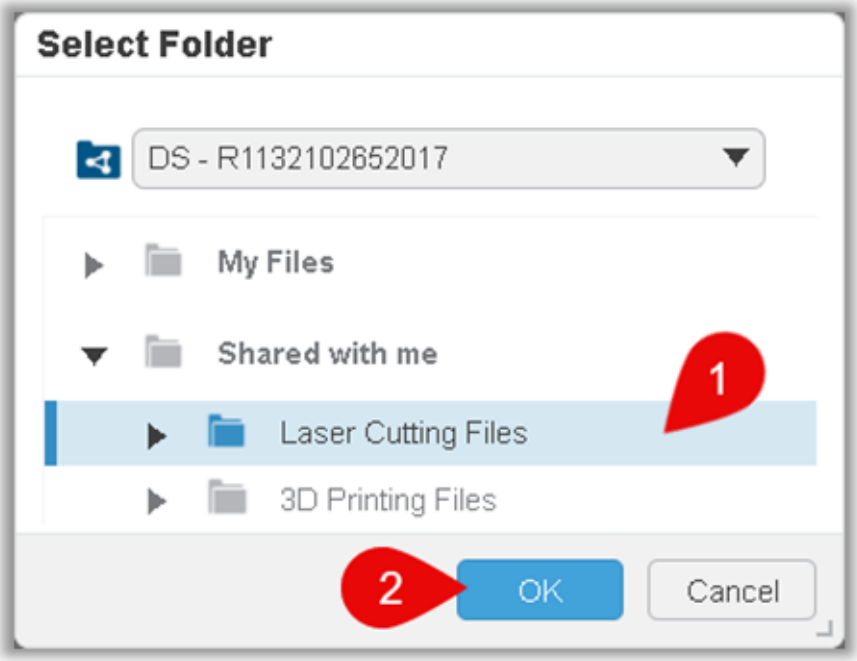
27. Select the large flat faces of the model



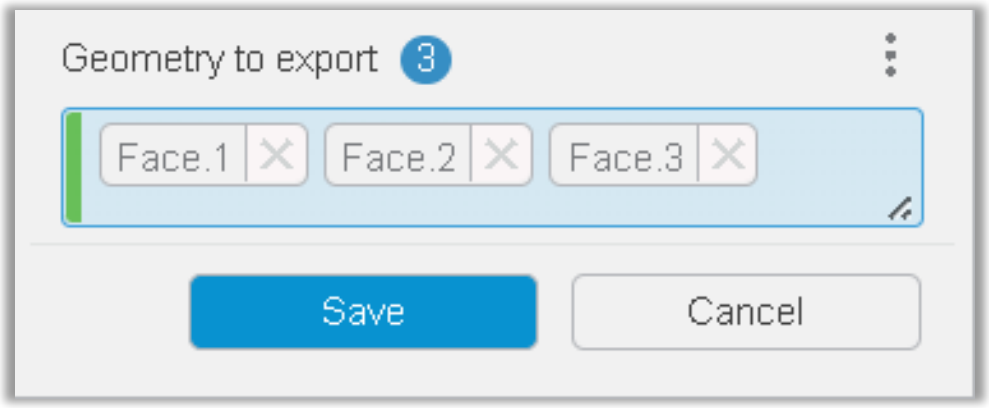
28. Click the Location folder button



29. [1] Select the folder your instructor told you to use to save your files then [2] click **OK**



30. Click the **Save** button in the Save as DXF dialog



Congratulations!

You’re ready to laser cut your design!

See your teacher for further instruction!