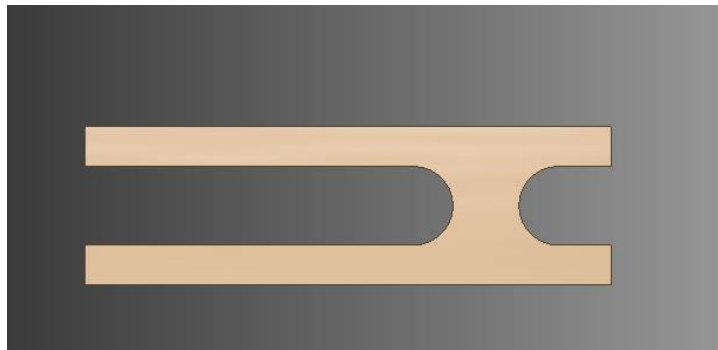


### Instructions for Mousetrap Car

1. Making the chassis;
  - a. Cut a 10" length of the 3" by 0.5" basswood
  - b. Measure to the middle of the 3" edge on either side, then draw a line running down the center of the board.
  - c. Drill holes with a 1.5" hole saw, with centers along the line at 1" and 3.75". Use a ruler to connect the edges of the two circles, so that you have two lines that are parallel, the same distance from the center line, and tangent to the two circles.
  - d. Now cut along those lines from either side, until you reach the circle cutouts. When finished the piece should look like this:



2. Make the mouse head and ears.
  - a. Cut a length of the 3" by 0.25" basswood to 3.625 in
  - b. Measure halfway down the 3" sides and draw a center line.
  - c. Do the same for the 3.625" sides
  - d. Cut the wood to the shape as shown in the dimensioned drawing
3. The ears
  - a. Cut 2 1" by 1" right triangles from the 0.25" thick basswood
4. The bottom supports
  - a. Cut a 3" by 1" rectangle from the 0.25" stock, then cut out a triangle as shown
5. the axels
  - a. cut the 5/16" dowel to two 5.75" lengths
  - b. sand them until they slide easily through the bearings, but are not loose
6. Axel holder
  - a. Note: The axle holders are just meant to keep the string centered
  - b. Use a 1" hole saw to cut out 2 circles from the .25" basswood
  - c. Drill out the centers to 3/8"

Once all parts are manufactured, begin assembly.

1. Assemble the chassis as shown in the subassembly drawing
2. Assemble the axles, wheels, and bearing holders as shown. Note that the front axle will also need the axel holders. Make sure the axle holders do not touch the rest of the car anywhere. Use the superglue to attach the wheels to the axle, but make sure that you first have the

bearing holders (and axle holders on the front) slid on before you glue the wheels in place.



3. Slide the bearing holders (now attached to the axle and wheels) onto the forks on the front and back of the chassis, as shown in the assembly drawing. MAKE SURE THE AXLES ARE SQUARE TO THE CHASSIS AND PERPENDICULAR TO EACH OTHER, if they're not, the car won't go straight. Once you are sure the axles assembly is on correctly, glue it in place with the super glue.
4. Tape the provided throw arm extender onto the mousetraps as shown. It helps if you first rap tape between the bars of the mousetraps. Make sure the part of the extender that is whittled flat faces down and is on the side closer to the mousetraps.

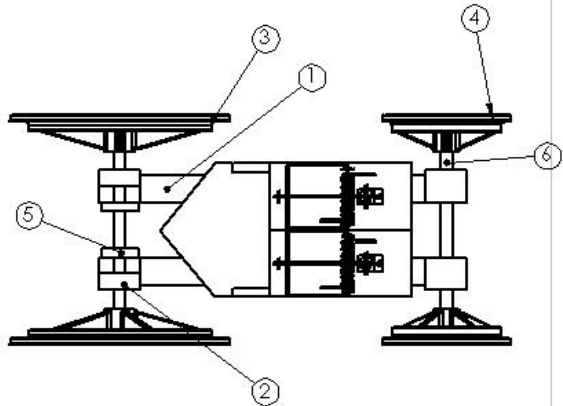
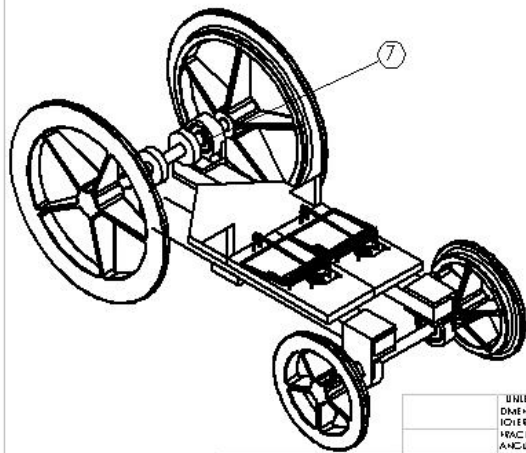


5. Cut a 20" length of string, and tie a slip knot or any loop in the end. Put it over the end of the throw arm and use gorilla tape to hold it in place, as shown. Two pieces as shown in the images work well.



6. Attach a small piece of blue masking tape to the end of the string, just before it intersects the axle

ITEM NO.	PART NUMBER	QTY.
1	mouse trap car chassis sub-assembly	1
2	mouse trap car bearing block	4
3	wheel 1	2
4	wheel 1 small	2
5	Mouse trap car axle holder	2
6	mouse trap car axle	2
7	skateboard bearing	4



PROPRIETARY AND CONFIDENTIAL  
THE INFORMATION CONTAINED IN THIS  
DRAWING IS THE SOLE PROPERTY OF  
CITY COMPANY. ANY REPRODUCTION  
WITHOUT THE WRITTEN PERMISSION OF  
CITY COMPANY IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONS ± 1/16" ANGULAR: MMC ± 0.5 BEND ± 1° HOLE PLACE DECIMAL ± 0.005" HOLE PLACE DECIMAL ± 0.005"		NAME	DATE	MSU M & I.E. DEPT.	
DRAWN	KF			TITLE:	
CHECKED				-	
ENG APPR.				SIZE DWG. NO.	
MAN APPR.				REV	
WATER				mouse trap car assembly drawing	
COMMENTS:			SCALE: 1:4 WEIGHT:		
NOTES:			SHEET 1 OF 1		

5 4 3 2 1

