

# Lates Shuffleboard Fine Motor Fun (LS-FMF)



William Lates, OTS

Milligan College Occupational Therapy, 2017

## Table of Contents:

Description.....	p.3
Materials Used.....	p.4
Tools Used.....	p.4
Diagrams.....	p.4-5
Step by Step Assembly Process.....	p.6-7
How the Game is Played.....	p.7
Activities/Variations.....	p.7-8
Performance Components.....	p.8-9

### Description:

The Lates Shuffleboard Fine Motor Fun (LS-FMF) is a board game designed to promote fine motor coordination while also incorporating a cognitive and discussion component. A therapist can use this game in a variety of ways to benefit different clients and work on many different performance components in a fun and exciting way. The game involves flicking pieces across the board surface, and depending on where the piece lands the client may either try and match two matching cards, or choose a discussion question that all players should be encouraged to answer. The game is played similar to shuffleboard in which in order to score points, players are trying to keep their pieces in the center, while knocking the other players out. The activities mentioned in the end of this booklet are not an exhaustive list and we encourage those using this game to grade and adapt the activity to meet each client's specific needs.

### Materials Used:

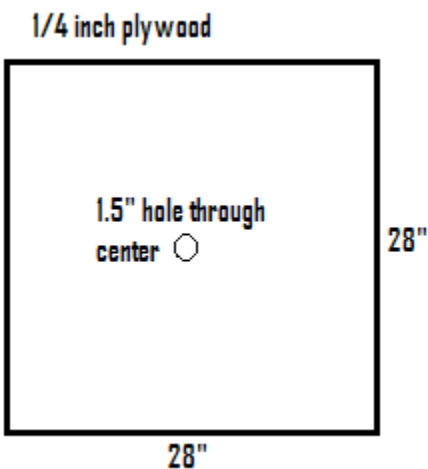
- 28"x 28" piece of 1/4" plywood (birch was used for this board)
- 1" x 3" cut into 3/4 inch strips 28 inches long each(x4)
- Wood screws 3/4"
- Foam Brushes
- Clear Gloss Oil-Based Polyurethane
- 1 inch brad nails
- Game Play pieces can be purchased online by searching for crokinole discs
  - Purchased through [www.maydaygames.com](http://www.maydaygames.com)

### Tools Used:

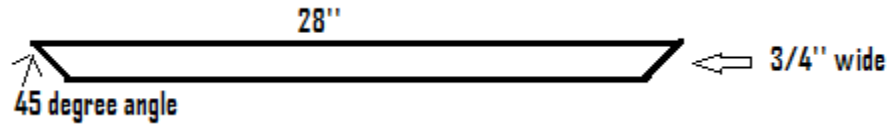
- Table Saw
- Skill Saw
- Miter Saw
- Brad Nailer
- Sand Paper (150 to 200 & 800 grit)
- T-Square
- Clamps
- Drill
- 1.5" spade or hole saw bit
- Phillips drill bit

### Diagrams:

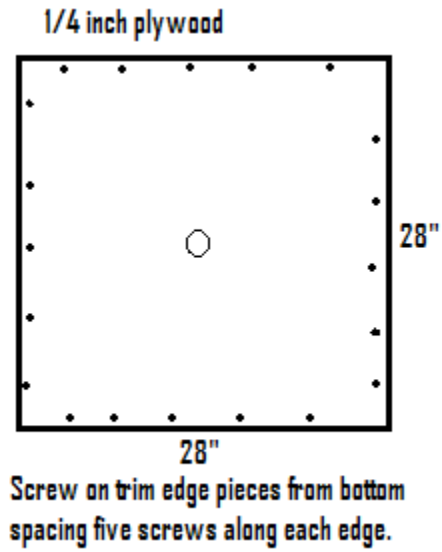
**Figure 1: Main Board**



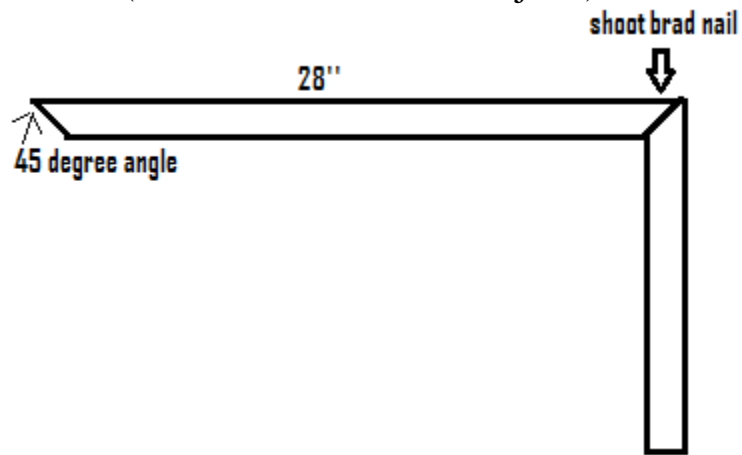
**Figure 2: Trim Strips for Edges (x4)**



**Figure 3: Screw Placement**



**Figure 4: Brad Nail Placement**  
(Shoot brad nail into each joint)



## Step By Step Assembly Process

1. Cut 28" x 28" piece of  $\frac{1}{4}$ " plywood using table saw or skill saw (Figure 1)
  - a. Measure lines using t-square
2. Drill 1.5" hole through the center of the plywood using Spade (Figure 5) or Holesaw bit (Figure 6) for drill.



**Figure 5:** Spade Bit **Figure 6:** Hole Saw Bit

3. Sand any imperfections on the plywood and in center hole until very smooth
4. Rip 4, 28 inch long  $\frac{3}{4}$ " wide strips from the 1 x 3" using the table saw
  - a. Take caution and use table saw push stick to keep hands away from table saw blade
  - b. Cut 45 degree angles on either end of the trim strips (Figure 2)
5. Using  $\frac{3}{4}$ " wood screws, screw the trim strips to the edges of the board through the bottom of the board using the screw placement as seen in Figure 3.
6. Use a brad nailer to shoot 1" brad nails into the corner joints between the edge pieces to hold them together.
7. Draw lines using a sharpie to the following dimensions: (Figure 7)
  - a. Outer line is 2" inside the outer edge strip.
  - b. Inner square around center circle is 1" from center circle
  - c. Second square around center circle is 2" from center circle
  - d. Using a medium sized circular coffee can, trace a circle 1" below each corner of the second square. Write numbers in as shown on Figure 7 or on front cover



**Figure 7:** Placement of Lines

8. Give sharpie a day to dry. Ensure surface is clean and then apply first coat of oil based polyurethane. Give a day to dry
  - a. \*Do this in a well ventilated area as the polyurethane is not good to breathe.
9. Lightly sand board using 800 grit sandpaper until very smooth, clean surface of sanding dust, and reapply second coat of polyurethane.
10. After giving a day to dry, lightly sand surface until smooth, clean surface of sanding dust and apply a third coat.
11. After giving a day to dry, sand surface and clean sanding dust and the board is ready to play.

### How the Game is Played

1. The object of the game is to score as many points as possible.
2. Decide on the first player to go first based on some criteria (oldest, tallest, shortest, youngest, etc.)
3. The first person flicks one of their pieces from the outer square toward the center trying to get it in the center hole. An automatic two points is scored if the piece lands in the center hole and the piece is immediately taken off the board.
4. If the piece lands in a space with a 1 in it, the player draws a discussion card. Each player scores 1 point if they answer the discussion question. If the piece lands in a space with a 2 in it, the player draws two matching cards and tries to get a match. The player scores 2 points if they get a match. The player keeps the matching cards that they get right.
5. The next player, going clockwise, flicks one of their pieces trying to get it in the center hole. All pieces that do not land in the center hole stay on the board for the entire game.
6. Play continues until all pieces have been used and are in play on the board.
7. Add up the scores to determine the winner.

### Activities/Variations

1. If you are focusing on cognitive or psychosocial aspects, you can use only the discussion questions or only the matching cards. Scoring would remain the same, except the player whose turn it is would score 1 or 2 points depending on where the piece landed.
2. You can have the person whose turn it is make up a discussion question for the group to answer instead of drawing a card.
3. You can choose to not use the board and just use the cards as a matching game.
4. You can choose to not use the cards and just play the game like shuffleboard, adding up the score at the end of the game. This adds a strategy component in knocking other players chips out of the point scoring areas.
5. Players can play a variation where they work together to see how fast they can land a piece in each of the outer circles before they shoot for the center circle. Stop the timer when all circles have a piece in them and a piece lands in the center circle.

6. The game can be played and practiced individually by using only the matching cards and adding up your own score as you go along or at the end.
7. If playing individually, client can set a timer and use all the pieces to how many points they can score in a certain amount of time.
8. New sets of matching cards and discussion questions can be created based on a client's interests/needs. Trivia questions can be used instead of discussion questions.
9. You can ask a player to aim for a specific target on the board to work on following directions.
10. The pieces can either be flicked, pushed, or hit with the back of a pencil or pen depending on the fine motor ability of the clients.
11. Game can be played by tossing laminated paper circles onto the board instead of using discs.
12. Game can be played standing up to work on standing tolerance and endurance.

### Performance Components

- **Expression of emotion:** the discussion questions will encourage clients to express their emotions in an appropriate and thoughtful way.
- **Self-regulation of emotions:** Clients will have to regulate their emotions appropriately during the game whether they are winning or losing.
- **Frustration tolerance:** The game can be challenging, and sometimes the client will lose and will need to regulate and cope with their frustration appropriately.
- **Social conduct:** clients will have to be respectful of each other in a group setting and be accepting of other clients stories that are presented through the discussion questions
- **Self-esteem:** through answering the discussion questions, clients will be encouraged to answer with self-confidence and assertiveness.
- **Stress/anxiety relief:** this a fun game and should help individuals cope with stressful times through social interaction and light-hearted competition.
- **Muscle endurance:** if played standing up, this task would be great for lower extremity muscle endurance.
- **In-hand-manipulation:** if client is using a pen or pencil to hit piece, they can keep score with the same pen or pencil and have to manipulate it in their hand for the different tasks.
- **Fine motor movements:** flicking, pushing, or hitting the pieces requires good fine motor control.
- **Joint mobility:** flexion and extension: reaching for pieces in the middle of the board will require almost full elbow extension, and 50° shoulder flexion. Can grade game for different motions by changing height and position of game board, matching cards, and discussion questions.
- **Following directions:** following the instructions of the game requires strong ability to follow directions.



- **Concentration:** the fine motor skill involved in the game requires full concentration to be successful.
- **Memory:** the matching cards require the client to remember where the cards are once they have been turned over once.
- **Creativity:** client will need to think creatively if playing version where clients make up the discussion questions.
- **Calculation:** the game requires scores to be added up at the end.
- **Pressure discrimination:** knowing how hard to flick the piece so it goes the right distance.
- **Figure Ground:** being able to identify the different color pieces on the background of the game board.
- **Unilateral neglect:** pieces can be placed toward the side that the client neglects to help the client perceive the objects on that half of their field of vision.