

INSTRUCTION MANUAL

**Programming project 2020 Uni Basel**



Source Picture: https://www.entertainmentearth.com

**Gruppe-15 (SKIP-BRO’S)**

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# Overview

This implementation of *Skip-Bo* is a card game intended for a maximum of four players. The goal of the game is to get rid of all the cards in the player’s *Stock pile.* This can be achieved by placing these cards in the middle of the board in numerical order, from 1 to 12. Though the game can be played with more than 4 players, this specific version concentrates on just 4. It is a turn-based game, which means that at any given time, there is only one specific player that can act. Only after their turn can the next player be allowed to play a card.

# Content

The game has 144 cards, ranging through the numbers 1 to 12. Each card is coloured one of four different shades – **red, blue, yellow or black.** In addition to these 144 cards, there are 18 *Skip-Bo* cards, which act as jokers. These are coloured in **cyan.** These cards can act as any other card in the deck and can be used to fill gaps.

Players receive 5 hand cards and 20 cards in their stock pile at the beginniung of the game and the rest of the cards will be placed in the middle of the board as the *draw pile* for all players.

# Play Area

The playing area consists of space for 4 different *build piles,* and 4 discard piles for each player. In addition to these, every player also has a stock pile, the first card of which is turned over. The draw pile must also be present in the middle of the playing area, as this is where the hand cards at the start of each turn is drawn from.

## Different Piles

Build piles: There can only be a maximum of four build piles at any given time. Each build pile must be started with the card with number 1 and every following card must be a number higher. If the card with number 12 is laid on top, that particular build pile is removed from the game and can be later reshuffled into the draw pile.

Discard Piles: The discard piles are specific to each player and there are no rules as to what cards can be played to these piles. There is also a maximum of 4 discard piles per player. These piles serve as backup to play cards to the build pile, if there are no valid moves left in your hand cards or the stock pile. Only the top card from each discard pile can be played – one cannot search for a card from the discard and play it to the build pile. As soon as one card is played to the discard pile, the player’s turn ends.

*Stock pile:* This is the main pile of the game. The top card is always turned over, and this is the pile that should be emptied to win the game. All other piles can be modelled to facilitate the playing of each stock card. Only the top card can be played, but there is no limit as to how many cards can be played from the stock pile, if each card move is valid.

*Hand cards:* Players start with 5 hand cards that are visible only to them. These cards can be played to the build piles at any time but playing one of these to the discard ends the player’s turn.

# Playing Skip-Bo

As previously mentioned, the goal of *Skip-Bo* is to play all cards from the stock pile to the build piles in the middle of the board. A card can only be played to the build pile, if the card is one number higher than the card on the build pile. Cards can also be played to the player’s discard pile, which ends their turn, but grants access to that card in later turns. Cards from the hand and discard piles can be used to build piles in the way you need to play the card from the stock pile. The first player to empty their stockpile is the winner of the game.

## Beginning of Turn

At the beginning of each player’s turn, their hand cards are automatically filled up to 5 cards. They can then start playing their cards to the pile of their choice. It’s best to check the cards that are on the build pile and your stock pile, and play your hand cards accordingly, so as to facilitate the playing of the top stock card. If no valid move is allowed, the player must play a card to the discard and end their turn.

## Playing to different piles

The cards can be moved by a 2-click mechanic. By clicking on the card you wish to play, and then clicking on the pile you wish to play to. For example, to play the second card from a hand, the player would click on the second card and then click on the build pile they think the card belongs on. The game checks the validity of this move and moves the card accordingly. Without the GUI, these commands need be typed in the message box with a specific command that is explained in Section 5. The network protocol processes these commands, distributes to the game accordingly and sends back whatever output the game prompts it to.

## End of Turn

The end of turn is signified by the player playing a card to their discard pile. Though there is no rule as to what card can be played to the discard pile, only one card can be played per turn, so that card must be chosen carefully!

## 

# Commands (for playing without GUI)

As long as the implementation doesn’t have a complete GUI, the game can be played using commands in the chat. Every command starts with a slash and the letter case is being ignored. In the following list, words within brackets can be customized.

List of commands:

* ***/change name [newName]***   
  *Changes your name to “newName”*
* ***/help***

*Lists all commands available to the client*

* ***/change status [status]***  
  *Changes your status to “status”. Possible options for Status are “ready” or “waiting”.*
* ***/msg [name] [message]***

*Sends a private chat message to the player called „name“*

* ***/broadcast [message]***

*Broadcast your message to all players across all games and lobbies*

* ***/new game***  
  *Starts a new game with 4 players*
* ***/list players***

Lists all players currently connected to the server.

* **/list games**

Lists all open, ongoing and finished games.

* ***/play [PlaceFrom] [N] [PlaceTo] [N]***  
  Puts a card from the pile "PlaceFrom" to the pile "PlaceTo"  
  The piles are abbreviated with: *hand cards* = H, *stock pile* = S, *discard pile* = D, *build pile* = B.  
  For the stock pile, N is always 1. For hand cards, N can be a number from 1 to 5. For the build and discard piles, N can be a number from 1 to 4.

This command must be written correctly, exceptions by this command are not being handled and the correctness of the move is not validated!

*Example: To play the 2nd hand card to the first build pile:* ***/play H 2 B 1***