

# **DES621a**

## **Creative Visualization**

# **Trouble In Flatland Rule Book**

**Offline**

**Game Design:**  
By Rahul

# Background Story

A bunch of scientists got the message from the flatland and find it very interesting that life also exists in lower dimensions too. Filled with curiosity they built a Inter-dimensional Traveling Device (IDTD). But this device can only allow only one person to travel through dimensions and in hurry they were able to make only two of them.

As they reached the Flatland they were arrested by the authorities and kept in a complex prison made of lines. In process to escape in outside world they all got separated. In this process one of there devise got lost and found by a team of evil but intelligent prisoners. As soon as they got knowledge of this they decided that they should go back to 3 Dimensional world and tell them the possible danger.

This is were the quest begin ...

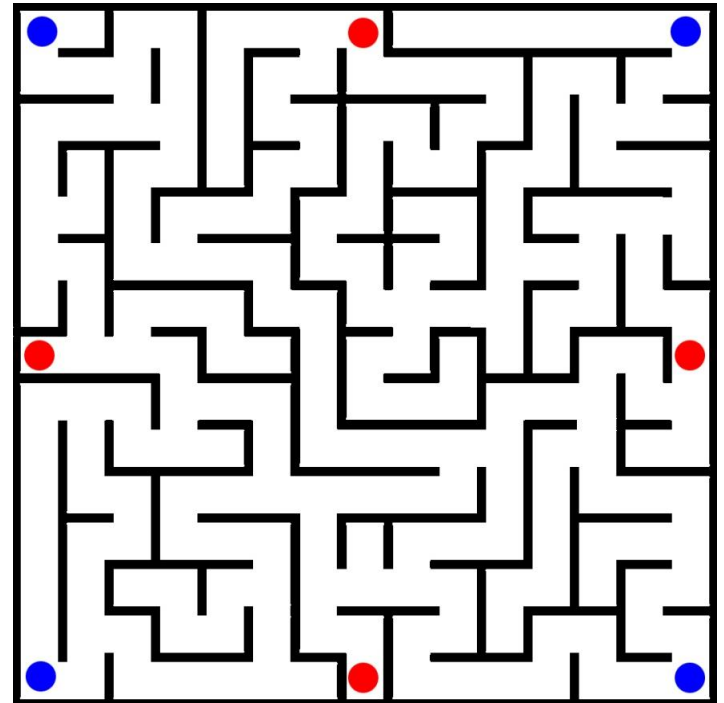
# How to Play -Steps

1. Game starts with '**Highest Die Role Method**' to find out the winner for this method.
2. After this Upgrade cards are being shuffled and 9 cards are taken out.
3. These 9 card are placed on upgrade points so that the upgrade poiints cant be seen.
4. After that game starts.
5. Die rolling starts with top-center-player and proceed in anti-clockwise manner.
6. Player rolls the die and use the total number of dots to walk or turn.

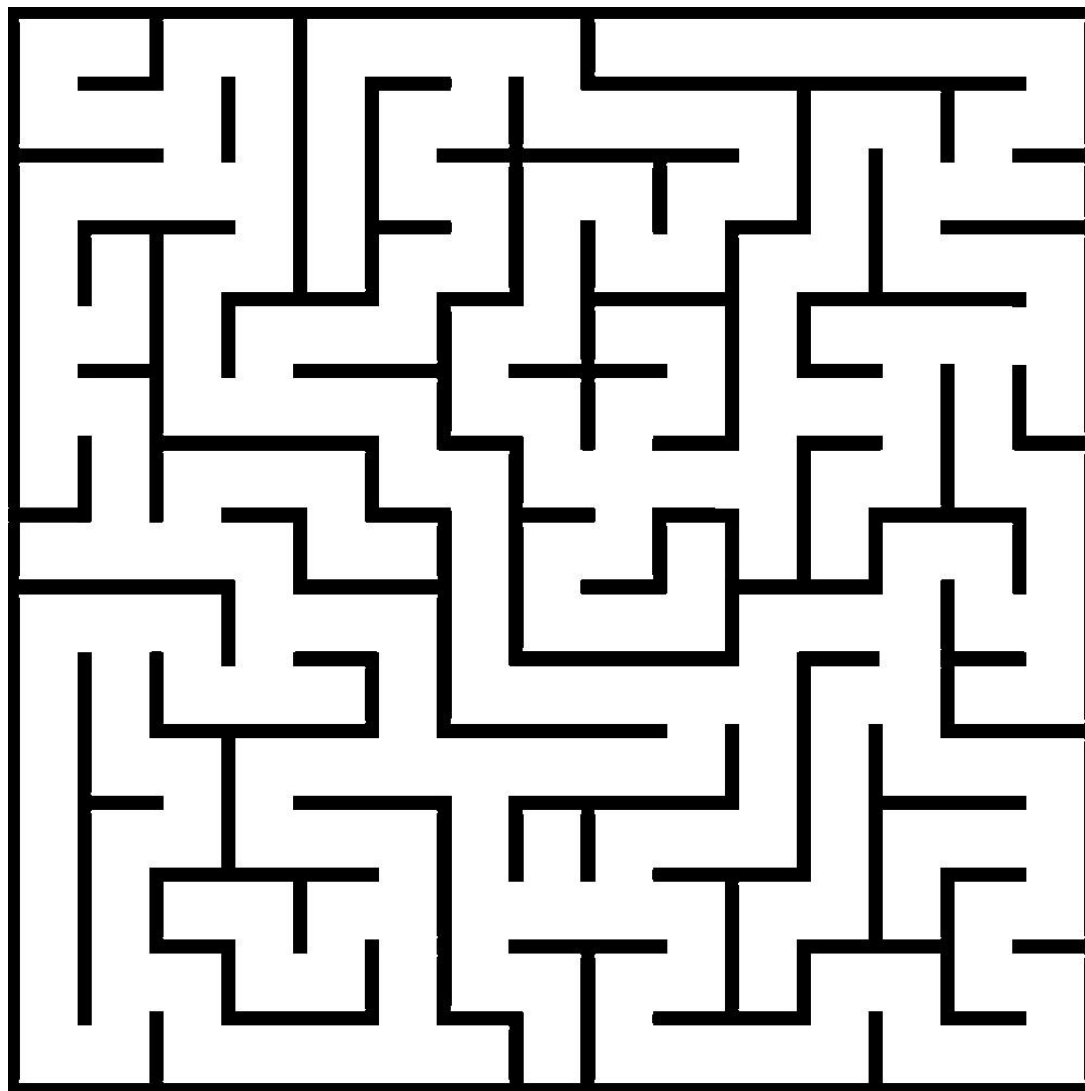
# Highest Die Role Method

In this method one (anyone) of the members of each team will roll the pair of dies. The one with highest score gets to choose his preference set of positions. If there happens to be any case of tie then those teams will do the same process to break the tie. This process is repeated till we have a clear conclusion. Then after preference are given by 1st winning team and then 2<sup>nd</sup> team.

This is took into consideration because in teams with 4 player each the red position seems easy spot than blue.



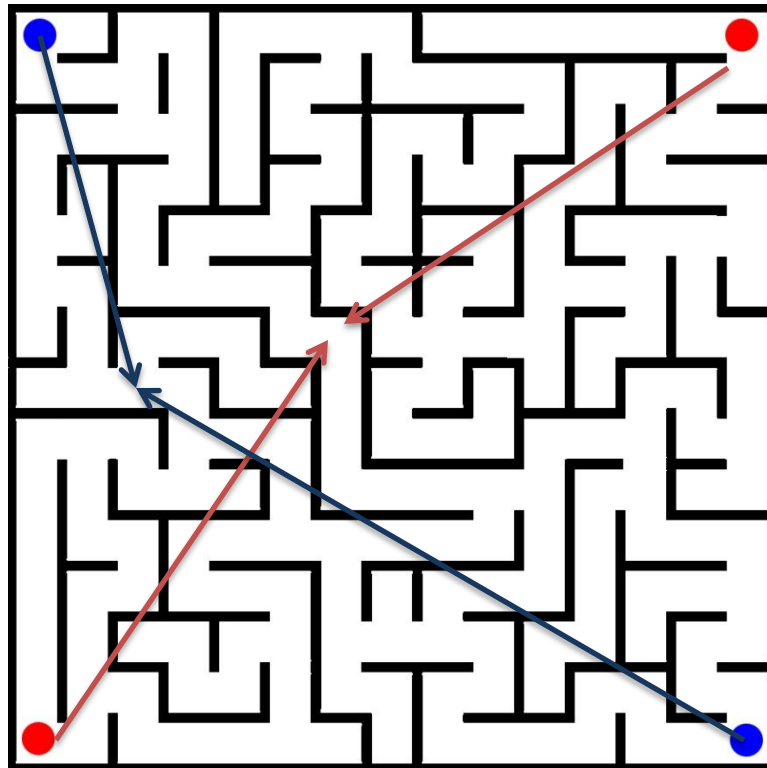
# Prison Map



# Aim to play - 1

Each member of a team are separated. Number of prisoners are same as number of scientists.

For a team of two players, members of a team have to meet each other before the rival team's members can anywhere in the prison.



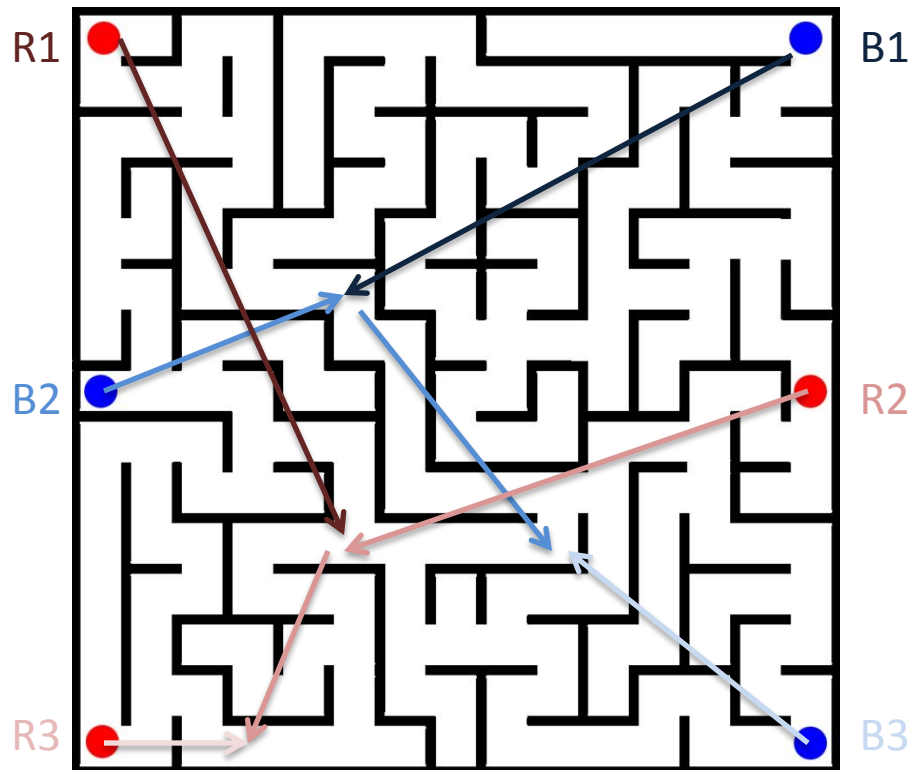
# Aim to play - 2

Each member of a team are separated. Number of prisoners are same as number of scientists.

For a team of more than two players, people have to play **Relay Race**.

In 3 player team : 1 → 2 → 3

Game ends as last 2 meets 3.

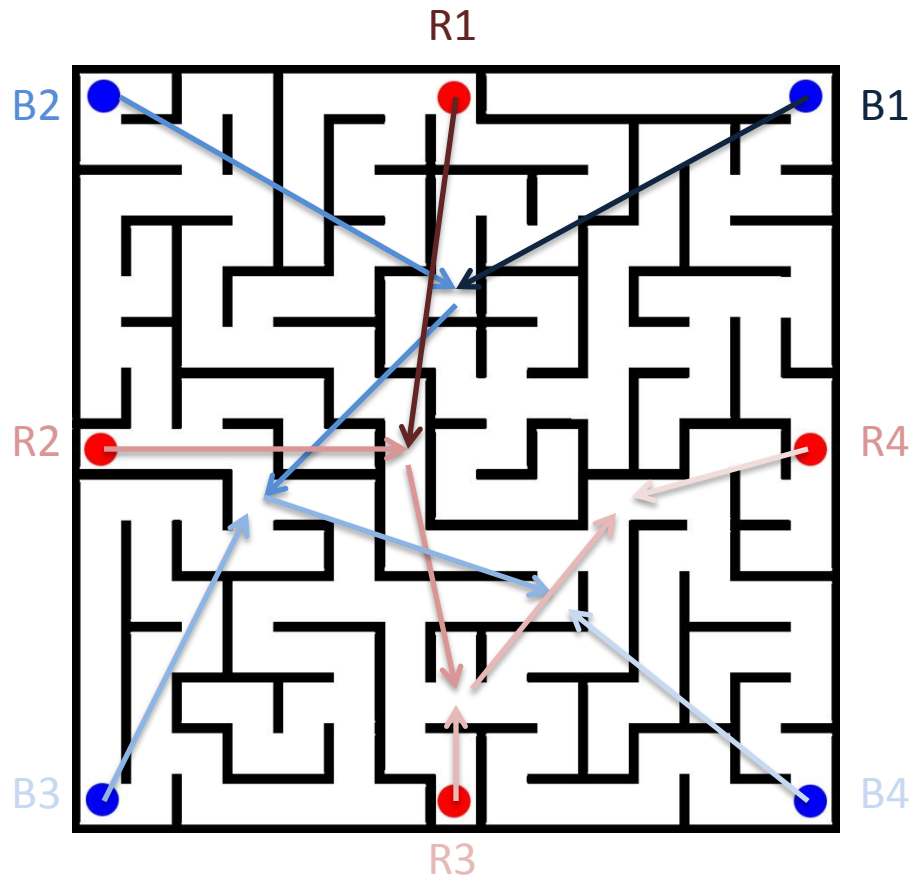


# Aim to play - 3

For a team of more than two players, people have to play **Relay Race**.

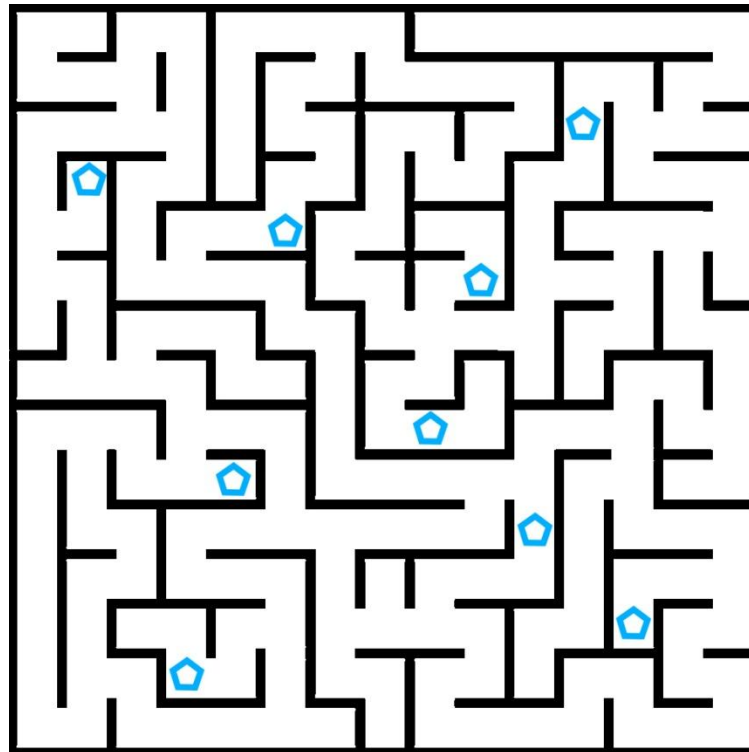
In 3 player team : 1 → 2 → 3 → 4

Game ends as last 3 meets 4.



# Upgrade Points

The state of being Equilateral Triangle can be changed by using **Upgrade Points** which sometime hidden or sometime can be found in the way. These points are predefined and cannot be changed in any game. Each upgrade point contains a square **Upgrade Card** (flipped) which contain amount of upgrades. If a player reaches a Upgrade Point he/she is bound to use the upgrade.



# Upgrade Cards

There are 20 cards present. 9 cards are taken out of them and placed on upgrade points. Remaining deck of cards should be kept preserved. In this whole method no card can be seen by any of the players.

In starting cards are being shuffled and 9 cards are taken out of them. This work will be done by two players, one from each team.

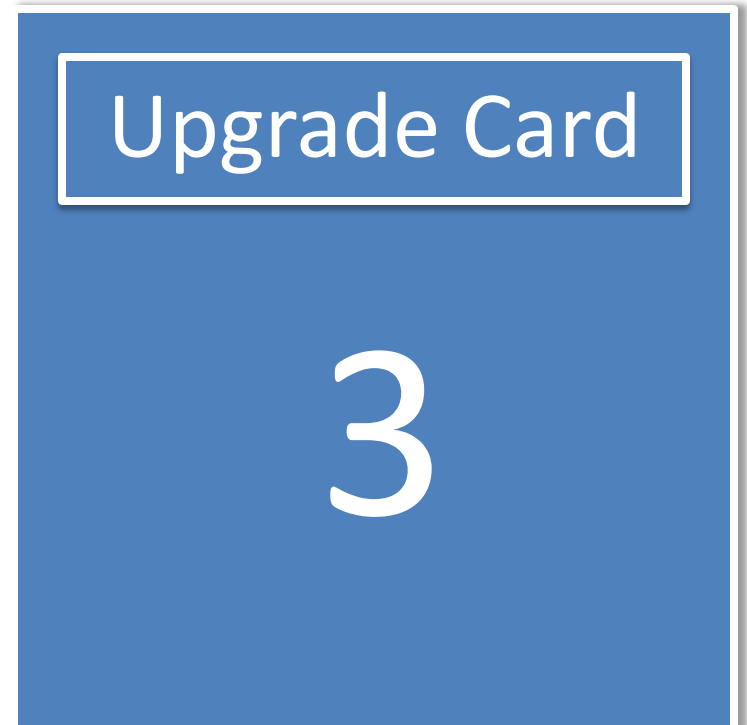
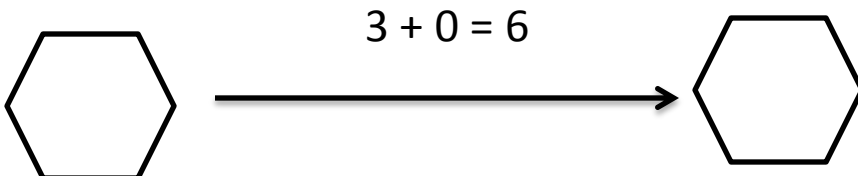
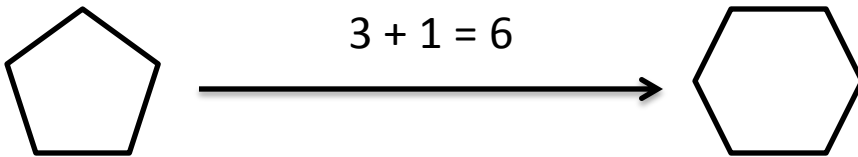
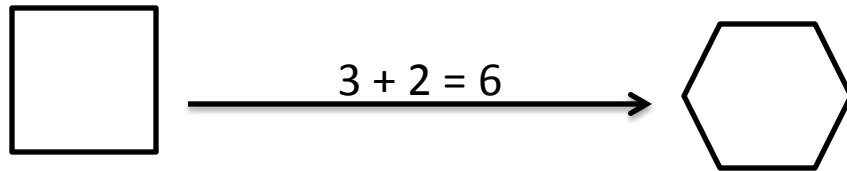
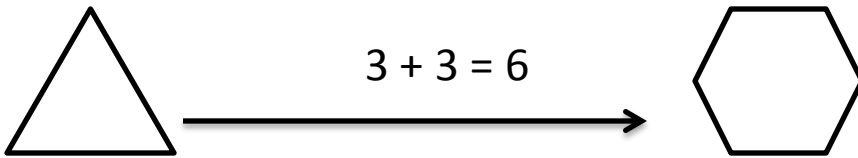
- Card shuffling should be done by player from winner team of **Highest Die Role Method**
- And 9 cards will be picked by player of loser team of **Highest Die Role Method**



# Upgrade Card

Upgrade card contain maximum number of lines to add to player. Upgrade number could be anything between 0 to 3. After using the card, it should be placed at the bottom of the card deck and another card on the top should be placed in its place.

1. **Triangle** update to a **Hexagon**
2. **Square, Pentagon** update to **Hexagon**
3. **Hexagon** cannot update by any card.



# Movements

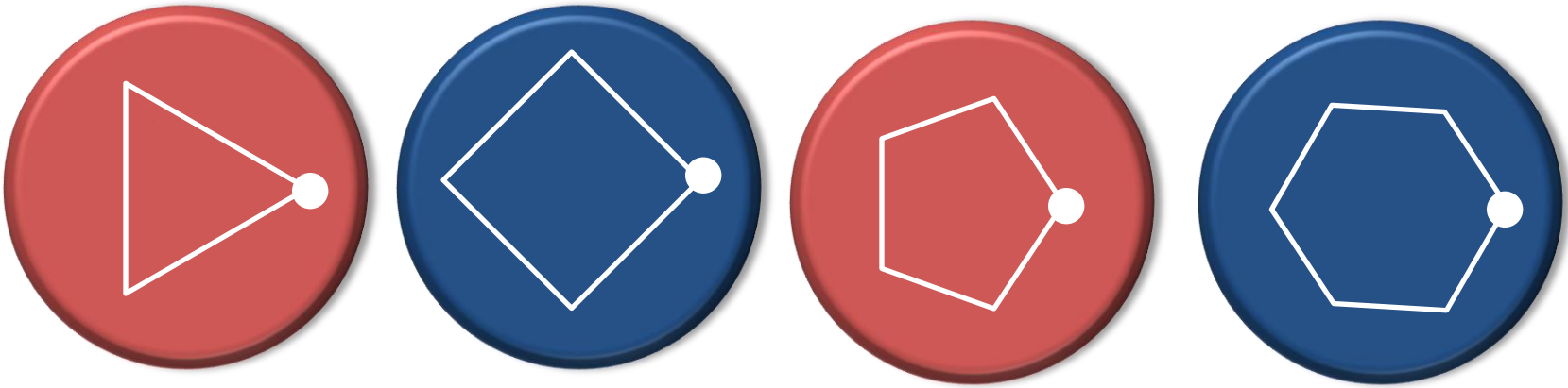
Each member of a team are separated. Number of prisoners are same as number of scientists. In order to **rotate** or **move straight**, one in the prison have to pay certain amount of points (dots) to the corrupted officers of the prison which is provided by the two teams helping them using a set of die. The amounts of dots to be paid depends on the angle they have rotated as :

- To move one cell straight you have to pay one dot.
- To turn left or right one have to pay according to angle

$$\text{Number of Dots} = \frac{\text{Closets Multiple of 30}}{30} \times \frac{360}{\text{number of sides} \times 2}$$

# Movements

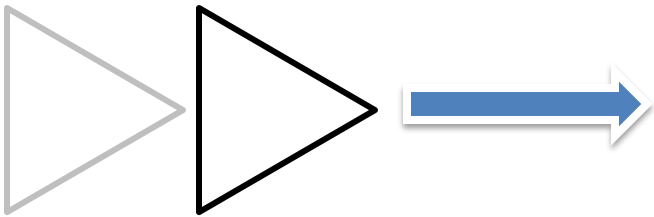
Player's Direction of movement is fixed which is marked on the die



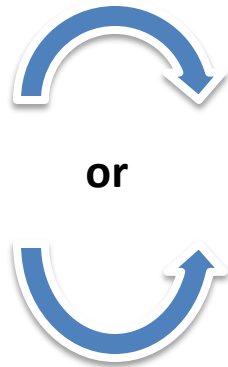
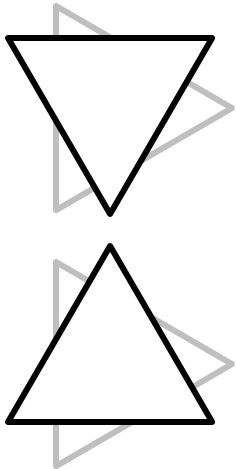
The white dot shows the direction. This should be maintained in the direction on movement while **Walking straight**. This should be changed while **turning**. Now in this case each player have direction of movement as right.

In start player is free to choose his initial orientation. After that he have to use dots to change it.

# Movements



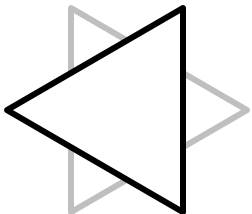
One dot for each Cell movement



To turn left or right

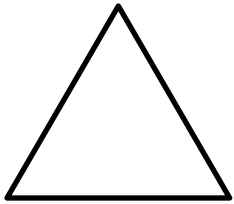
$$\frac{\text{Closest Multiple of } 30}{30} \times \frac{360}{\text{number of sides} \times 2}$$

In this case 2 dots



To turn back pay double of turning left.

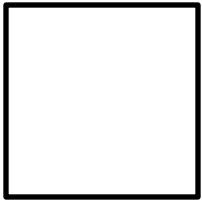
# Movement Table



**1**

**2**

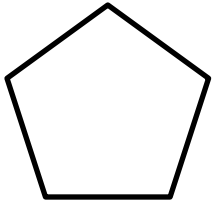
**4**



**1**

**2**

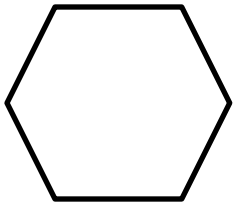
**4**



**1**

**1**

**2**











**1**

**1**

**2**

# Movement Card

Movement Card			
		 or 	
	1	2	4
	1	2	4
	1	1	2
	1	1	2

This could be used by players

# Source of Dots

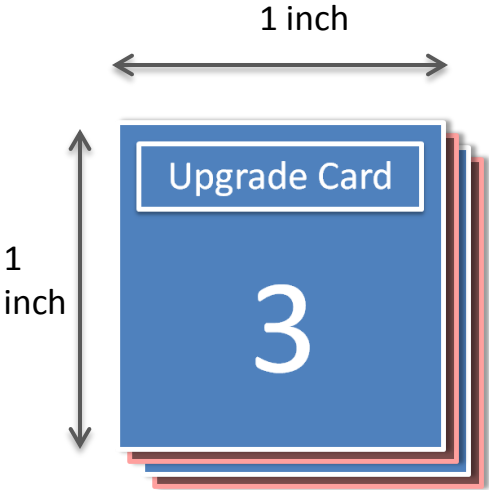
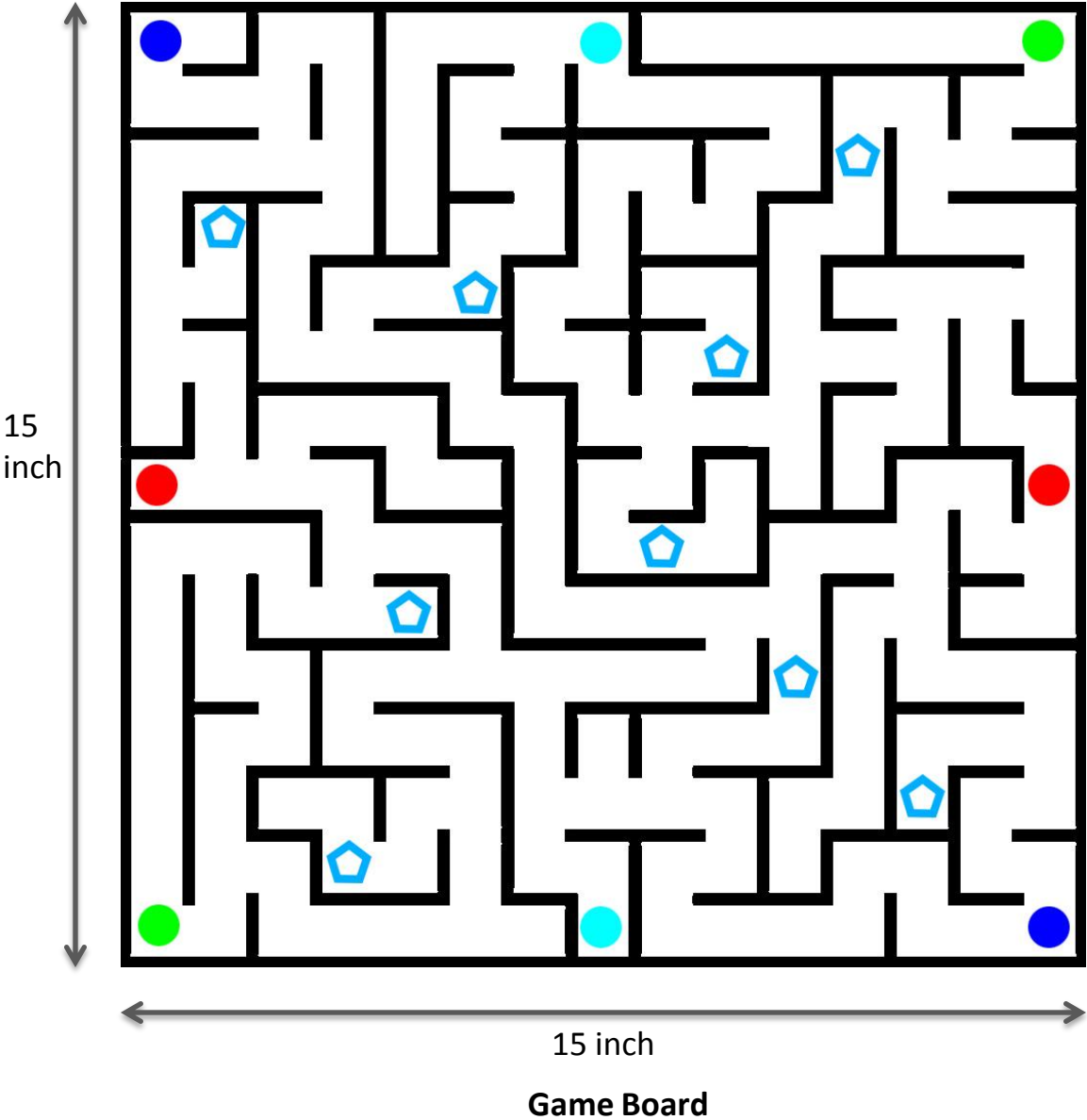
**In game the dots are obtained by rolling a pair of die.**

A single die is rolled by the player. Turn of rolling die if counter clock wise starting from the topmost person of the winner team of **Highest Die Role Method**.

- Total of each die will be the number dots you can spend in your present move.
- You can choose to use them for walk straight, to turn left/right or to turn back.
- The maximum number of dots should be used which should be monitored by other team.
- If a player have got 5 dots he/she is bound to use maximum of them. Although player cannot be forced to use them in turning. Players team members are free to advise the player in this matter. But they cannot force him.



# Final Game



20 Total cards



2 ludo dies