## The Dark Complex, Walkthrough:

## Preface

This is my walkthrough of TDC made with help of people at Jay Is Games discussions, and my own experiences. Those who haven't solved TDC yet, and want to do it without spoilage of the experience of having done it autonomously, please stop reading here. I don't present thoughts alone, but I present the whole solution! This is merely a documentation of one way through TDC. Here and there the solutions don't have an explanation, especially the last puzzle, the ray mirroring, mostly because I couldn't find any myself, although there is a main thought behind it all. All solutions here albeit sometimes wrong do still work. The ray mirroring can be done in many ways, but there is a possible way with great elegance, which I didn't discover. I saw the pure solving as my goal. Therefore my brute force approach didn't reveal the thought behind that puzzle. The author of TDC, Jonathan May says my solution is "plain wrong". But it works. Maybe many more of my solutions have greater beauty yet to be found! Please do not use this walkthrough as a means for cheating. That was never my intent.
http://www.woolythinking.com/
http://jayisgames.com/

## The puzzles

The first thing to press is the big shiny button. Lets call it MB (Main Button) Based on its position lets call the wall right to it W 1 , the one next right W 2 , next W 3 , and the one left to it W 4 . Further lets call the roof W5 and the floor W6.

Let's press MB. The walls become grey, and each wall contains a small switch with broken concentric rings. MB has now activated a puzzle. MB always activates a puzzle in a room. If the puzzle is already solved MB activates a map over the complex.

This puzzle is very simple. Press each and every switch without leaving the room. Remember the Colors that each wall gets:

```
-W1 was red
- W2 was yellow
-W3 was cyan
-W4 was blue
-W5 was green
-W6 was magenta
```

As soon as the last switch is pressed the puzzle disappears, and hatches will open. These lead to other rooms, and reveal mirrors. I will explain the mirrors later. MB has now changed role and appearance. Press it again, and a map will appear. Each wall with hatches leading to other rooms will have an orbit with 3 moons. Each moon has a base colour (i.e. red green and blue) The mirror walls will have orthogonal arrows, that will have impact on solving a ray puzzle involving all rooms, all mirrors and the centre room. (See R222)

Based on the moons in the map projection let's notate the rooms.
Obviously this first room has no colour. We are going to make a coordinate system based on the base colours. We call this room R000 (Room, 0 red, 0 green, 0 blue) If we enter the room with half a red moon we enter a red room. Lets call it R100. The complex consist of $3 \times 3 \times 3$ rooms, so the room in our opposite corner is thus called R222. The rooms are not coloured based upon colour blend.

In the end of each axis there is a switch for red, green or blue rays that will travel through holes in the walls.

I will describe each room in alphabetical order though it is not likely the way to go.

## R000: Black, The start room

The room has grey walls when activated. Each wall has a switch surrounded by concentric circles. Press each switch without leaving the room.

## R001: Blue

This is a slide puzzle. Each piece has to be aligned to fit the background. Easy. Work in layers from top downwards. All walls have standing triangles, so when you have only bottom piece left just choose wall that it would fit would it slide up, make that wall empty by moving all other triangles, and slide it in place!

## R002: Blue

2 patterns on each wall must be combined without any overlapping, let alone the centre. The result pattern must be the same on every wall, and inner circle must fit the background pattern.

## R010: Green

A pure slide puzzle. Assort the segments of the same pattern on each wall. (Of course there is one piece missing)

## R011: Cyan



This one reminds of "The Dark Room". The walls has to be joined pair wise, based on their behaviour. W1 and W6 switch size. W2 and W4 swap place, W3 and W5 overlaps. Take the sequence $1,6,2,4,3,5$ for instance. Order of the pairs matter not!

## R012: Blue

Three blobs with three different shadows. When a blob is clicked all blobs change colour. There is a set of colours that is looped. When a blob is clicked it moves forwards in the loop, and the other blobs move backwards in the loop. Aim is to get every blob with the same shadow in the same colour, but every type of shadow must have a unique colour. This is not as difficult as it sounds. There are some simple rules to remember:

```
1. Pressing all cells once in order rotates all cells left one step.
2. Pressing one cell twice brings it forward two steps, and the two others back two.
```

These are actually all rules one need to achieve the right combination. One click still manipulates the whole set, so some additional experimenting is required. There is still a lot of thinking to come around. Remember that these rules hold whatever the blob colours are!

Try getting all in the same colour, and then click a certain pattern based on the shadows.

## R020: Green

Each wall has a pyramid of gears rotating in different directions. Compare all 6 pyramids, and find that there is exactly one gear in each pyramid that rotates in the wrong direction. Click it!

## R021: Green

Slide puzzle, but a little more difficult. The pieces are circle fragments that have to be joined to complete circles for success. Try working in layers, and use room corners to turn the pieces!

## R022: Cyan

This room holds 6 aquariums with 3 kinds of lobsters. These lobsters are activated when the puzzle is started. When they are clicked they get passive and stay in the aquarium they happen to be in. Put one of each sort in each aquarium. A good strategy is to take one sort at a time and nail them to each aquarium.

R100: Red
Each wall contains a set of 4 kinds of galaxies. The sets don't match however. Only one kind is common to all walls. Click them.

## R101: Magenta

There are four eyes on each wall and one in the roof. When the puzzle is started W3 has a magenta eye top left. If an eye is clicked it disappears and some other constellation appears. I have tried to make some sense in the moves but so far I haven't
 succeeded. I have though explored all sequences. To illustrate possible paths I have made a table. Each wall has a column, and the eyes visible after each move are presented in order from left to right, downwards. Correct sequence below:

and the full path for those lost:


## R102: Blue

Each wall has 4 segments in a set of 4 colours. When pressed a segment swaps place with the one immediate clockwise. Arrange the segments so that they meet over the room edges. Very easy!

## R110: Yellow

This is probably the most difficult room. Each wall contains 2 coloured arrows, and a map segment. This map segment is part of a global map of a planet. Each segment of this map may be given an invisible colour. This colour is given by the one common colour of the six arrows that reside in the neighbour segments. If unfolded this planet map looks like the one to the right. Note that I have removed the arrows and added the invisible colours:

Each arrow must point towards the segment that has its colour, the walls show the segments scrambled, alas! There is a good way of understanding this puzzle if one makes a map of it, which I did. When I thought I had the pieces right, I
 tried to find the map segments in the room, and to that I needed a map of the room too, which I created below. In this map one can clearly see that the segments are scrambled. My notation of the walls is there though, as well as MB. This map is a room map, not a globe map! It is used when solving the puzzle.


## R111:

This room contains planets that are to be alighted by the rays in order to open the doors in the last room (R222 White) Watch the rooms in the middle of each face of the complex, the ones containing a lens instead of a switch. The rays have to be directed so that the lens is flooded by the right colour. Then the planet with that colour will be enlightened. Easiest way to find a scheme is to fold out all the walls of the cube. See R222 for some solutions.

## R112: Blue

Clouds and their shadows sweep by. Check the shadows and sink (click) the clouds that doesn't match its shadow.

## R120: Green

Invisible stars in the room cast reflexes in the walls. Let each star have a unique colour, and let each reflex image get that colour. The thought is wrong according to Jonathan, but I can't see another way to think.

## R121: Green

Similar to the R101 room but there is only one eye on each wall. When the puzzle is started W4 has a green eye. If an eye is clicked it disappears and some other constellation appears. Correct sequence below:

|  | W1 | W2 | W3 | W4 | W5 | W6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | - | - | - | g | - | - |
| 2 | - | - | r | l | - | - |
| 3 | - | b | I | - | - | - |
| 4 | r | r | - | - | - | - |
| 5 | b | - | - | b | - | - |
| 6 | - | - | - | I | w | - |
|  |  |  |  |  | l |  |

and for those who got lost, the full path

|  | w1 | W2 | w3 | W4 | W5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | - | - | - | $\mathrm{g}$ | - |
| 2 | - | - | r | $r$ | - |
|  |  |  | 4 | 1 |  |
| 3 | - | - | $\begin{aligned} & \mathrm{g} \\ & 5 \end{aligned}$ | $\begin{aligned} & \mathrm{g} \\ & 2 \end{aligned}$ | - |
| 4 | - | $\begin{gathered} b \\ 6 \end{gathered}$ | $\mathrm{g}$ | - | - |
| 5 | - | - | b | $\begin{aligned} & \mathrm{g} \\ & 2 \end{aligned}$ | - |
| 6 | r | r | - | - | - |
|  | 9 | \| |  |  |  |
| 7 | b | - | - | b | - |
|  | 5 |  |  | 10 |  |
| 8 | r | g | - | - | - |
|  | 1 | I |  |  |  |
| 9 | $\mathrm{g}$ | - | - | g | - |
| 10 | - | - | - | g | w |
|  |  |  |  | 2 | x |

## R122: Cyan

The segments on each wall loop through a unique set of positions for each click. Join the walls pair wise.

## R200: Red

6 lobsters swim around. They are activated from start, which mean that they can cross aquarium borders. One click locks a lobster in an aquarium. Lock each and every one in an aquarium of its own.

## R201: Red

Each wall contain one green hand, three shadow hands and one red setting hand. When the green hand is clicked it aligns itself with the setting hand. The setting hand is directed by the red roof hand. Once this red hand in the roof is clicked it points to whatever is down, and the setting hand in each wall turns just as much, but not the same way. The shadow hands reflect the other walls green hands. Align all of the hands upwards, or whatever you like, as long as the hands and shadows are aligned. All directions are quantified, so there is no need for
 excessive precision.

## R202: Magenta

Each wall has 4 triangles. Once clicked a triangle and its neighbours turn into dots. Turn all triangles into dots in 8 moves. Try lower left and upper right in W1 thru W4...

## R210: Red

Slide puzzle. There are circle segments. Join them to a circle in each wall. Try working in layers.

## R211: Red

18 lobsters on the loose! Lock 3 in each aquarium (wall). They are all loose from start. Click on them to lock them in the aquarium.

## R212: Magenta

This room is similar to the map room (R110) Each wall represents a face of a planet. There are 5 islands on the planet, they have to be uniquely coloured. As with the map room I do with this one, a map of the walls (below) along with a map of the planet, (right) both unfolded style:


## R220: Yellow

A border on every wall separates yellow and magenta fields. The task is simple: let the border pass through every wall of the cube, throughout connected and consequently separating yellow from magenta. A hint, Main button corner is magenta! One more hint, think main button as North Pole, and approximate the equator.

## R221: Yellow

Each wall has a colour set, and contains three different cells:

```
W1 magenta, green, cyan
    empty, hole nucleus, gear
W2 blue, red, yellow
    ribs, three nuclei, solid nucleus
W3 red, blue, green
    empty, ribs, three nuclei
W4 magenta, yellow, green
    empty, hole nucleus, solid nucleus
W5 magenta, red, cyan
    hole nucleus, gear, ribs
W6 blue, cyan, yellow
    gear, solid nucleus, three nuclei
```

We see that each shape share but one colour on each wall colour set.

| - empty | green |
| :--- | :--- |
| - hole nucleus | magenta |
| - gear | cyan |
| - ribs | red |
| - three nuclei | blue |
| - solid nucleus | yellow |

When pressed each cell rotates one step right in the colour scheme of the wall, and the two others rotate one step left.

The walls must contain:

```
W1: green empty
    magenta hole nucleus
    cyan gear
W2: red ribs
    blue three nuclei
    yellow solid nucleus
W3: green empty
    red ribs
    blue three nuclei
W4: green empty
    magenta hole nucleus
    yellow solid nucleus
W5: magenta hole nucleus
    cyan gear
    red ribs
w6: cyan gear
    yellow solid nucleus
    blue three nuclei
```

The puzzle never starts in the same setting, so there is no such thing as the right sequence, but there are some simple rules to appreciate. (See R012)

## R222: White

This last room contains a puzzle that will be solved when each mirror in the complex is directed so that each lens has the right colour. A mirror is hidden under each symbol looking the way the pictures to the right illustrate. The top
 one lets the light rays straight through and the one below bends the rays. The direction for the rays to turn will be given by the map one can activate with MB. The magenta arrows say that either a ray can continue in one of the arrows direction or be turned into the other ones direction, and in the contrary directions. To turn a mirror just click it.

At first I thought that the room colour provided the correct colour for the lens, but so is not the case. I tried the colours out, which I did by lighting e.g. all lenses on one equator blue, and excluding one at a time until the blue planet in the peephole lost its colour. Then I knew that the lens I just excluded was the right one. Thus I achieved this map. MB-s position is only present on the wall neighbour to it, and not
 on the others. Every room colour is also present in pastel colour. I present 3 suggestions of mirror turns. These are not the only ways to turn the mirrors, but some of many. As long it works it works... There is a way of great beauty! Find it!

A comment on my brute force manner of solving this last puzzle. I have a flaw for the "Plan your life - Live your plan" thought, which in this case lead me to a solution that was not optimal. There is a way of finding the right colours for the lenses. As soon as a lens is flooded, the peephole is surrounded by a thin orbit pattern, oval or circular. In the opposite room the pattern is visible looking in the peephole. There, find the planet that follows this pattern best (below should be magenta which one can see when the planets move), and note its colour as the right colour for the lens that was flooded.


Now do this in all rooms, making one of those maps. (These pictures have been lighted up, so one can see the orbits) The blue planet below is in its correct state, opening its corresponding door in R222.

Below is my first solution, the one I used when I first exited in R222. I didn't find it very beautiful or anything, but it served its purpose.


Below is my second solution. To this I took a map, mirrored it, printed it on paper, folded and glued it together forming a die. Then I sat down with a pen trying to find the optimal map. When I later did this fair copy along with fair copies of the other here present solutions I found that this my second solution is equivalent to Satirus' solution presented in the discussion at Jay Is Games. The beauty in this one is that many rooms don't need to be solved at all, since those mirrors don't need to be accessed. Also the rays end up in a different colour, building a complete circuit.


The last solution to be presented here is Tiralmo's, which I find most beautiful, since it uses every room, and passes single base colour lenses twice, maintaining light intensity, as well as ending up in a different colour, providing a complete circuit!


Amor Lassie has made this map of the complex rooms. I have modified it to fit my notation. He also made the 3D map of room R110 below.


I hope I haven't stepped on too many toes rearrangin g pictures to fit my standard, since I wanted to be consequent
 throughout my document.

I want to extend many thanks for all helpful hints at Jay Is Games in order to complete the game and this walkthrough. I have done a lot of work, mostly for my own benefit, but other people might still be interested in this document, even though it is a complete spoiler for those who hasn't solved the puzzle.

Special thanks to: Amor Lassie, Tiralmo and Satirus.

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