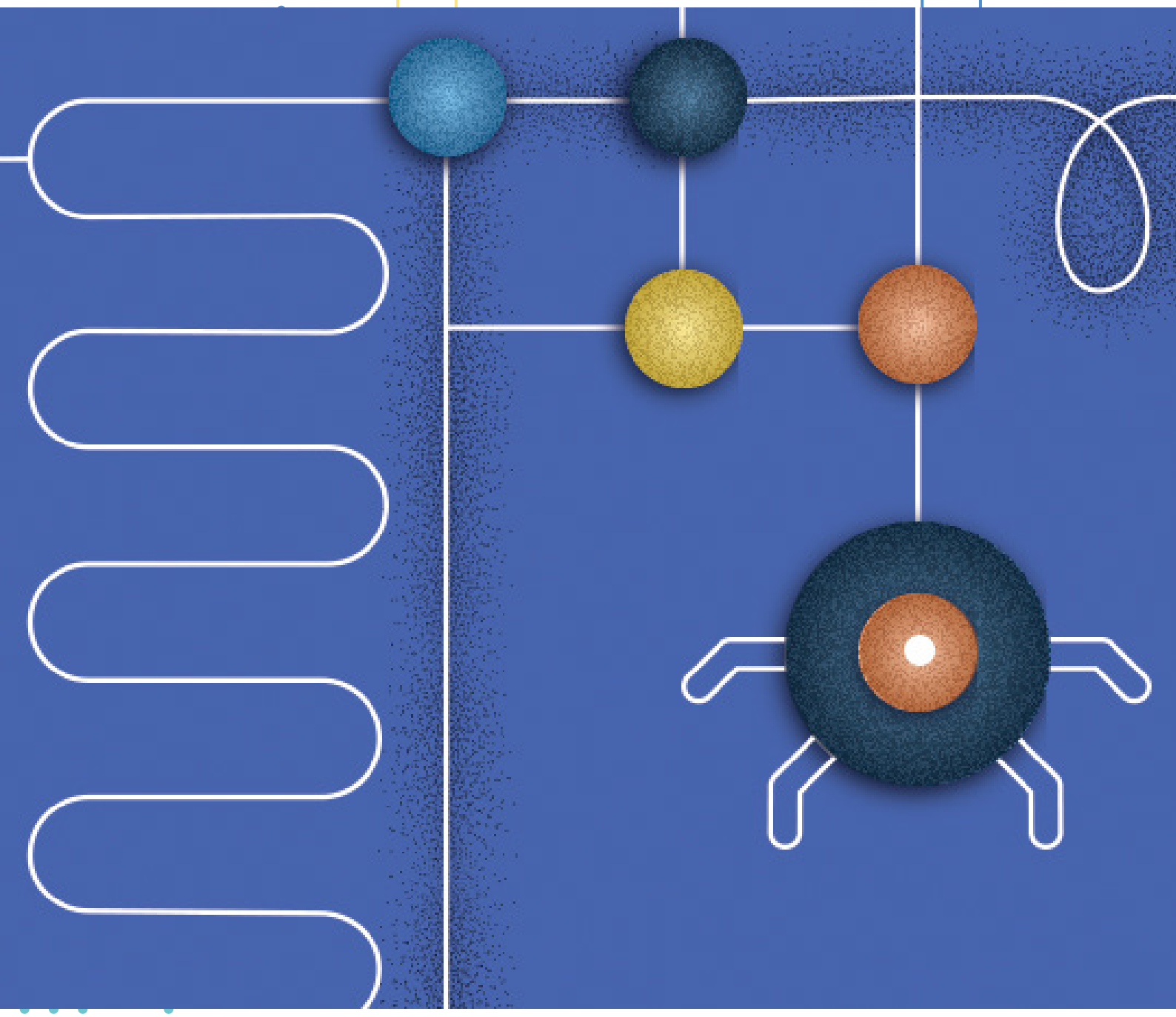
Guide to interactive applications

Luminous Planet In Trouble

Games with coding on the interactive floor

Designer: LavaVision



Luminous Planet In Trouble are Motioncube applications designed for interactive floors. The applications are controlled by motion.

Number of applications in the package: 16
Application control method: motion interaction
Design, graphics, software: LavaVision
Package release date: 2020-07-08

Motioncube is an interactive software that combines motion and fun in the innovative technology of the interactive floor. Motioncube applications are designed for entertainment, education, revalidation, rehabilitation. Dozens of games controlled by motion, touch, interactive pens, robots, as well as for PCs and interactive boards. Along with example lesson or activity plans. Quick and easy selection of games collections with delivery straight to the interactive device. Create the interactive space tailored to your needs with Motioncube.

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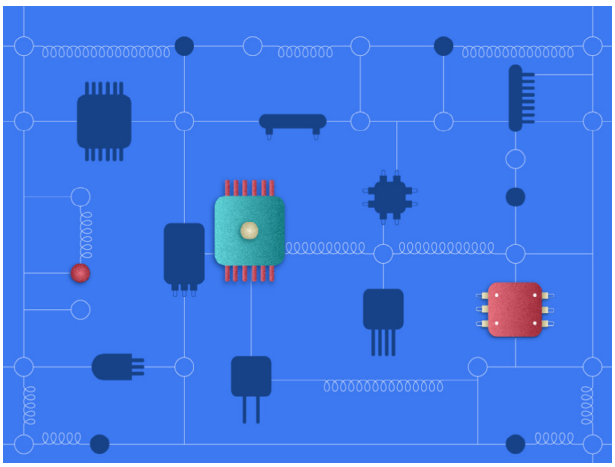
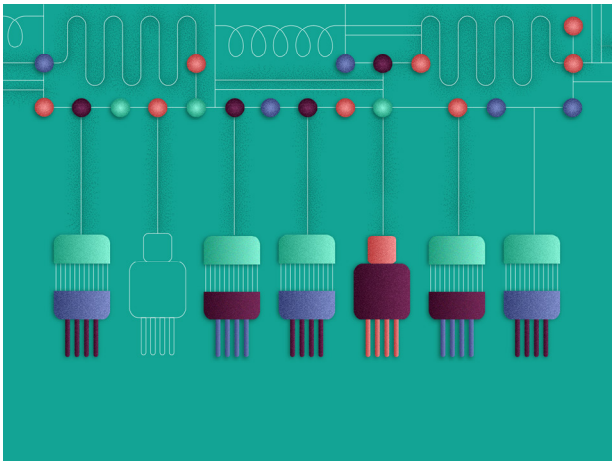
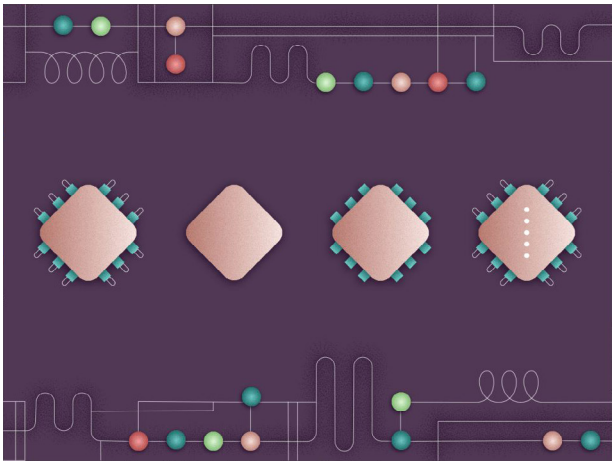
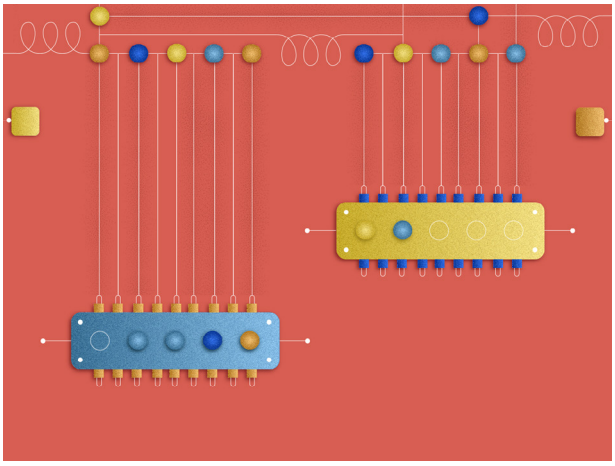
Rescue the Lumies and rebuild the planet!

After the Draconids' invasion on the Luminous Planet, the Lumies must rebuild their world. Help them in this mission and you will also learn some smart programming concepts. Restore communication on the planet and make it glow with colorful energy again! This will be a good start to your coding adventure. Jump, run, step and all of all have fun with the Lumies!



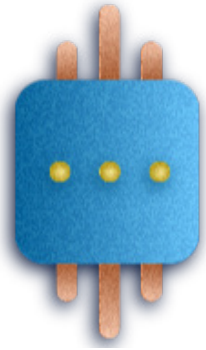






Who is it for?

The Luminous Planet In Trouble applications complement everyday educational activities for children in early school, as well as corrective and compensatory and revalidation classes. They can also be a great alternative to traditional coding learning in front of the computer screen, making the time spent by children of all ages more attractive and energetic in educational institutions, community centers and at home. This collection of applications is specifically intended for teaching programming basics to early school and school children.

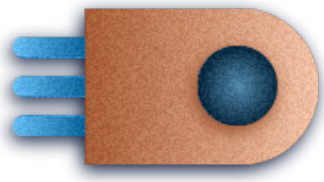


What are the objectives of these activities?

The Luminous Planet In Trouble is the first part of the original programming methodology at the stage of early childhood education. The applications included in the package are designed to introduce early chool children to the world of selected programming concepts in an interesting, attractive formula of games and activities. Moreover, the activities proposed in this game collection may support the development of logical and algorithmic thinking.

The applications included in this collection are aimed at introducing schoolchildren to the world of selected programming concepts in attractive movement games and activities. The games illustrate following concepts: logical comparison, values - true or false, data sorting, collection, encryption, iterative loop, pattern recognition, conditionals, communication, backup storage, pair programming, specification, decomposition, sequencing, instruction, algorithm, repairing faults, special characters, searching in the set according to a given criterion.

The authors of the Luminous Planet In Trouble tried to respond to the physical development needs of children in early school age, focusing primarily on supporting motor and sensory skills during organized and safe games.



What is inside?

The Luminous Planet in Trouble consists of sixteen richly illustrated interactive and logical games. Each game begins with a short story about the Lumies, which explains the purpose of the game to children, and ends with a reward in the form of congratulations and applause. The applications have been designed to provide a portion of entertainment and move that is a perfect variety of everyday activities, and at the same time offer a friendly form of work on the basic concepts related to IT and programming. The applications are pleasantly sounded to additionally make the time spent on the interactive floor more pleasant for children.

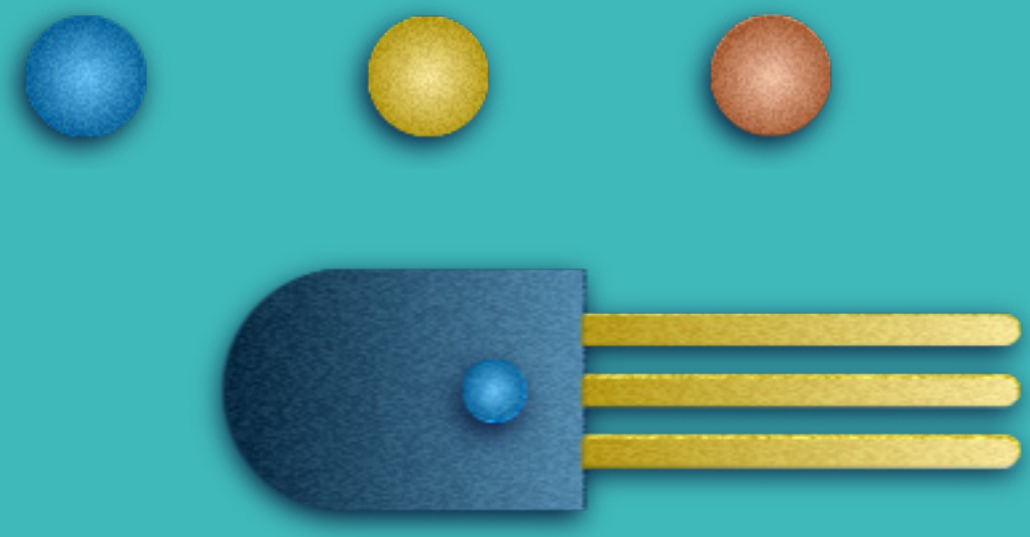
All applications included in the package are embedded in an interesting narrative. The Lumies are very small robots that communicate with each other using a code made of coloured lights. The energy flow on their planet was disrupted by the Draconid rain - a swarm of cosmic meteors. There are various examples in the applications of how you can help the Lumies restore communication that is so important to the proper functioning of their planet. The applications from the Luminous Planet in Trouble have been provided with graphics, which were nominated in 2020 in the Polish Graphics Design Awards competition in the Motion Graphics - Interactive Animation category.

Child development support

The applications included in the package have been developed in cooperation with teachers and psychologists. Interactive games and exercises can perfectly enrich group class scenarios as well as individual exercises.

Activities based on applications from the Luminous Planet support:

- perception;
- motor coordination;
- to concentrate attention;
- pattern recognition skills;
- the ability to distinguish between objects;
- logical and algorithmic thinking, problem solving skills;
- gaining knowledge on Internet and computer usage;
- understanding the basic concepts of programming.



What programming concepts do we get to know in Luminous Planet In Trouble?

The purpose of the games and exercises proposed in the Luminous Planet In Trouble package is to present children with selected concepts and principles from the world of programming, which in themselves are often very abstract, but taking the form of fun games with interesting narration, become accessible, understandable, and even inspiring for young people. minds. Students can try to relate the learned concepts to examples and real-life situations in which they apply them:

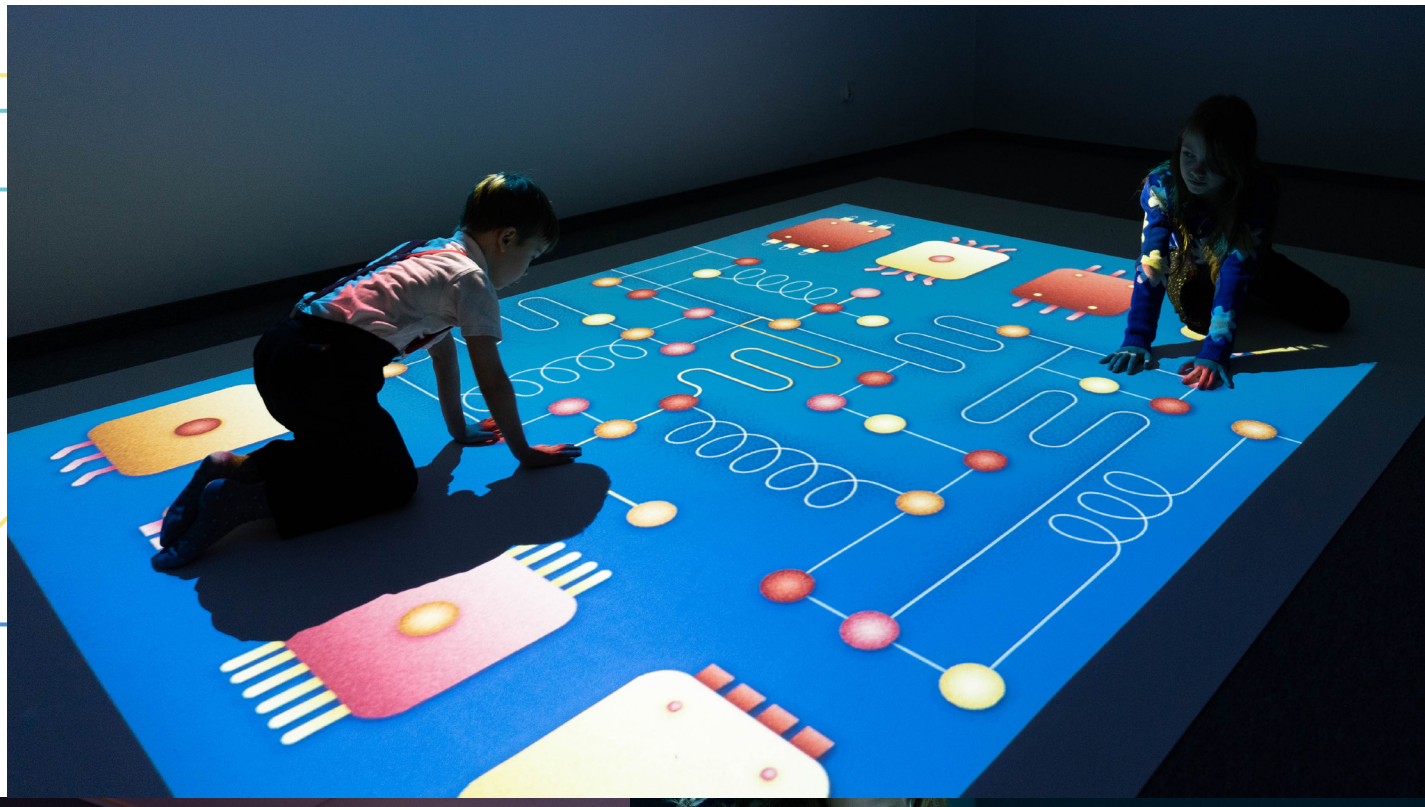
- *boolean value - true or false: True or false*
- *sort data: Fold The Lumies*
- *information encryption: Break The Code*
- *data: Data Is Coming*
- *iterative loop: Looped Lumies*
- *pattern recognition: Missing Lumies*
- *conditional statement: Plug In*
- *communication: Show The Path*
- *backup: Recover code*
- *pair programming: Synergy In Pairs*
- *specification: Reconstruct The System*
- *decomposition: Luminous Puzzle*
- *sequence: Repeat The Message*
- *algorithm, instruction: Code The Lumies*
- *special characters: Old Warehouse*
- *searching in the set according to a given criterion: Lumies Finder*

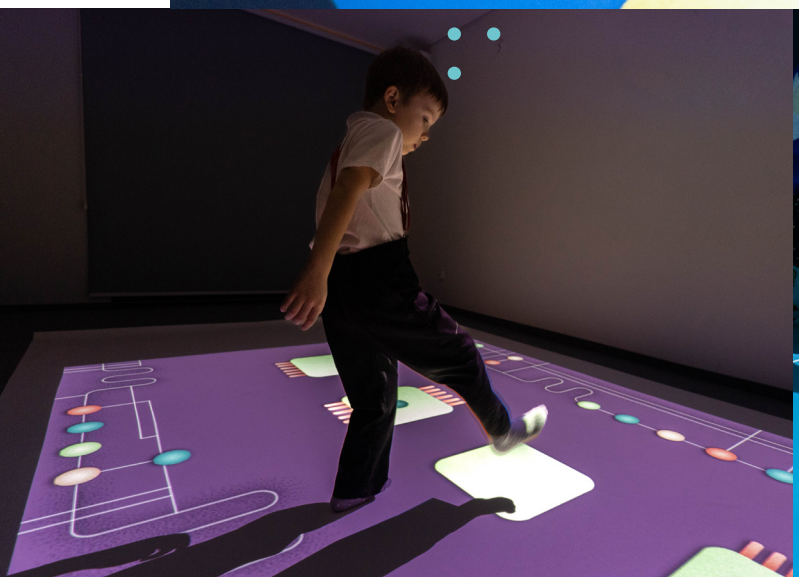
Do you want to know more?
See Luminous Planet In Trouble - Teacher's Guide.

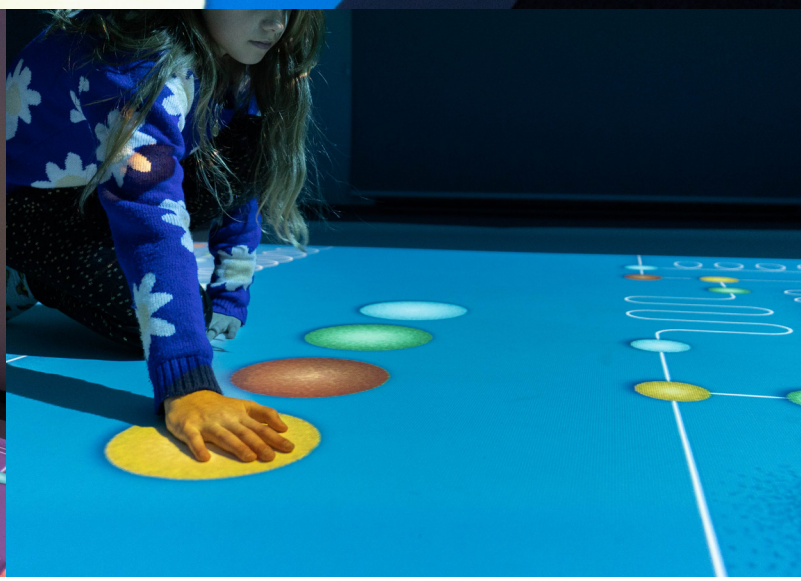
Fun with the Luminous Planet In Trouble on the Motioncube interactive floor

You can run the Luminous Planet In Trouble games on the interactive floor with Motioncube Player available on **www.motioncube.io**

See video

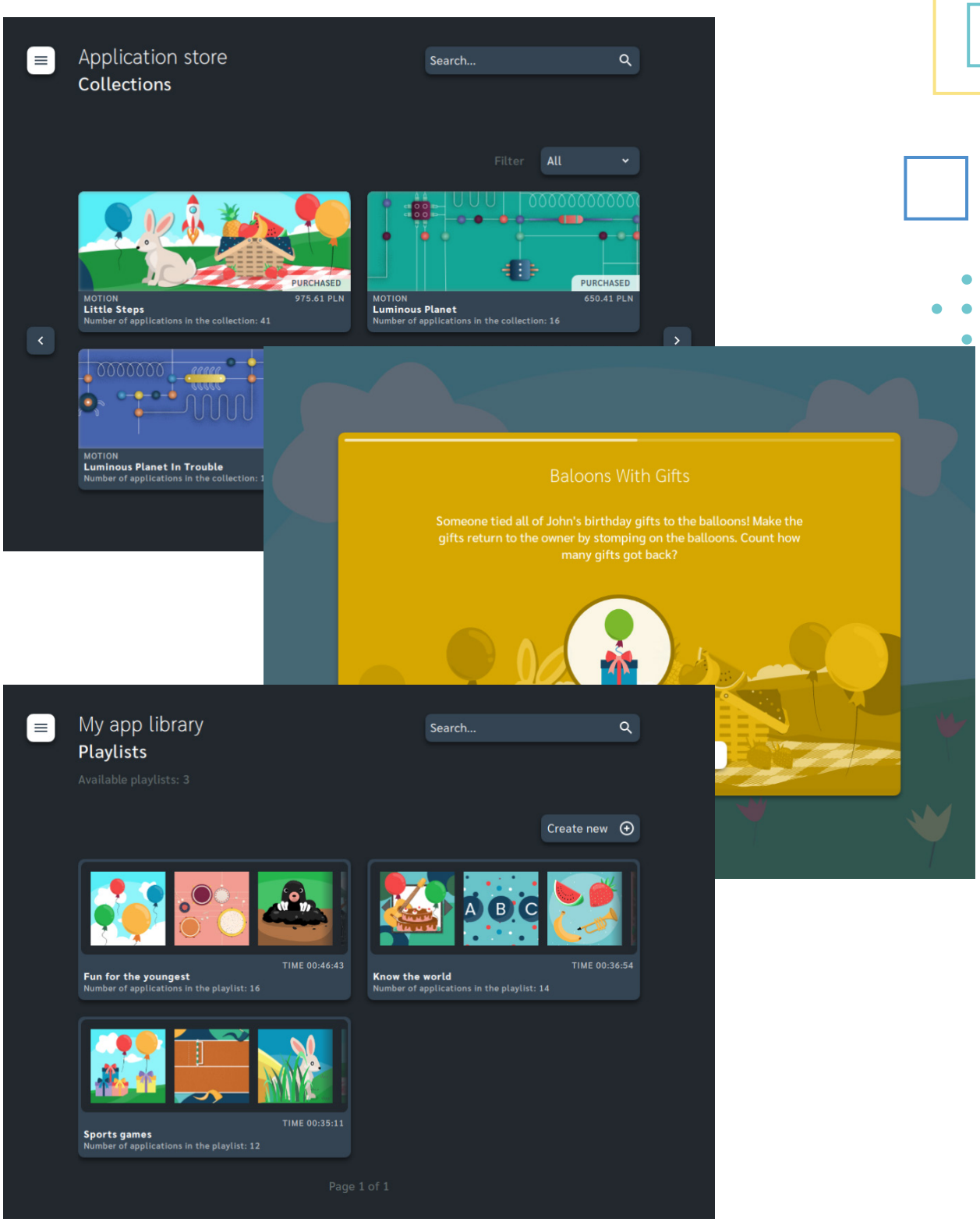






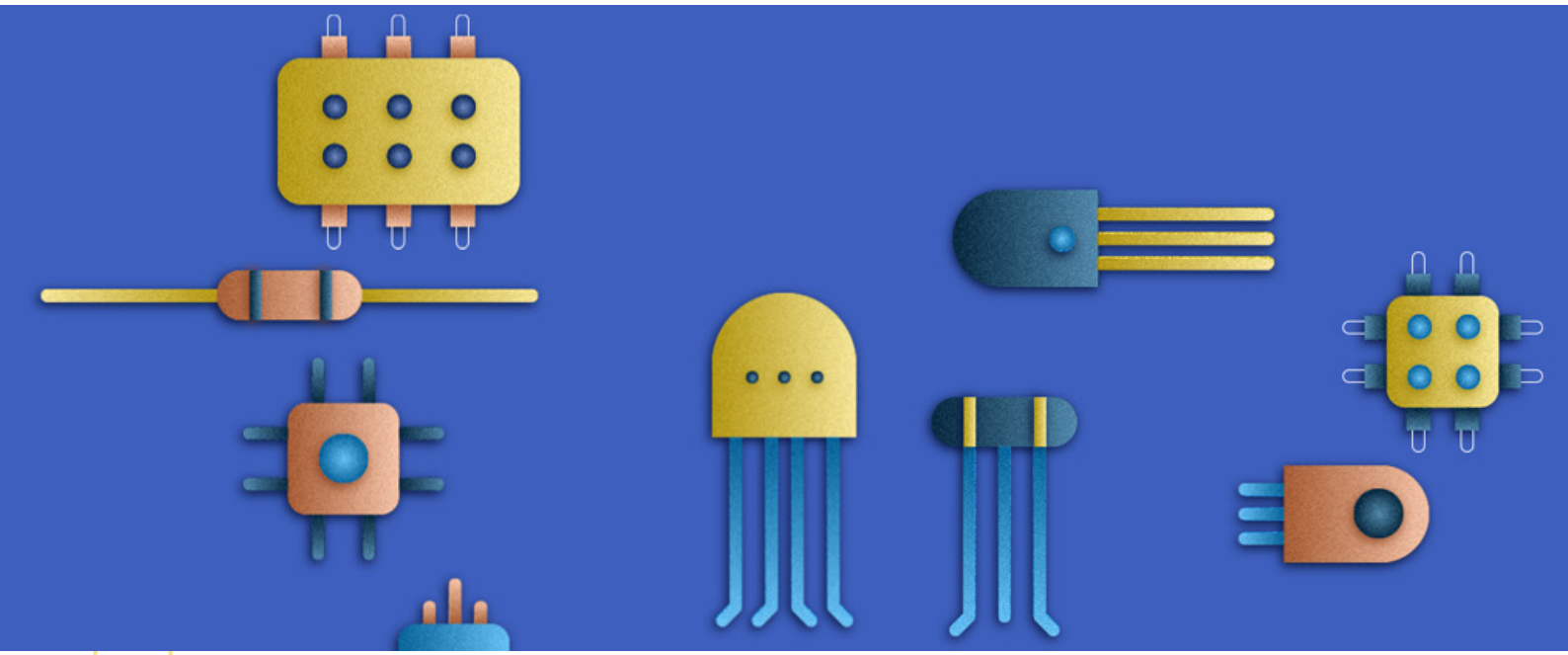
Motioncube Player

With Motioncube Player, you can easily manage your App Library, update your app collections, run playlists, and access a wide offer of educational interactive games.



Why to choose the Luminous Planet In Trouble?

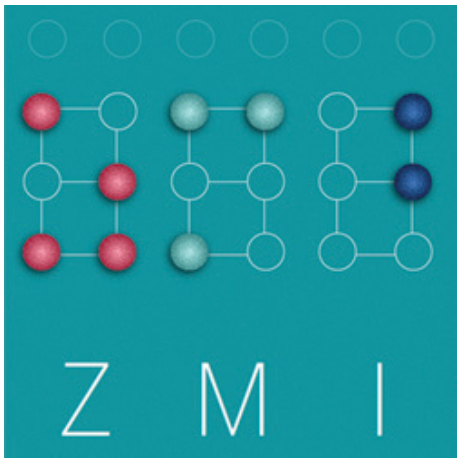
- Interesting programming concepts in fantastic movement games;
- Logical, algorithmic puzzles with shining Lumies;
- Simple to use;
- Graphically beautiful;
- Checked by teachers;
- Very much liked by children.



We’re going to the rescue of Lumies!

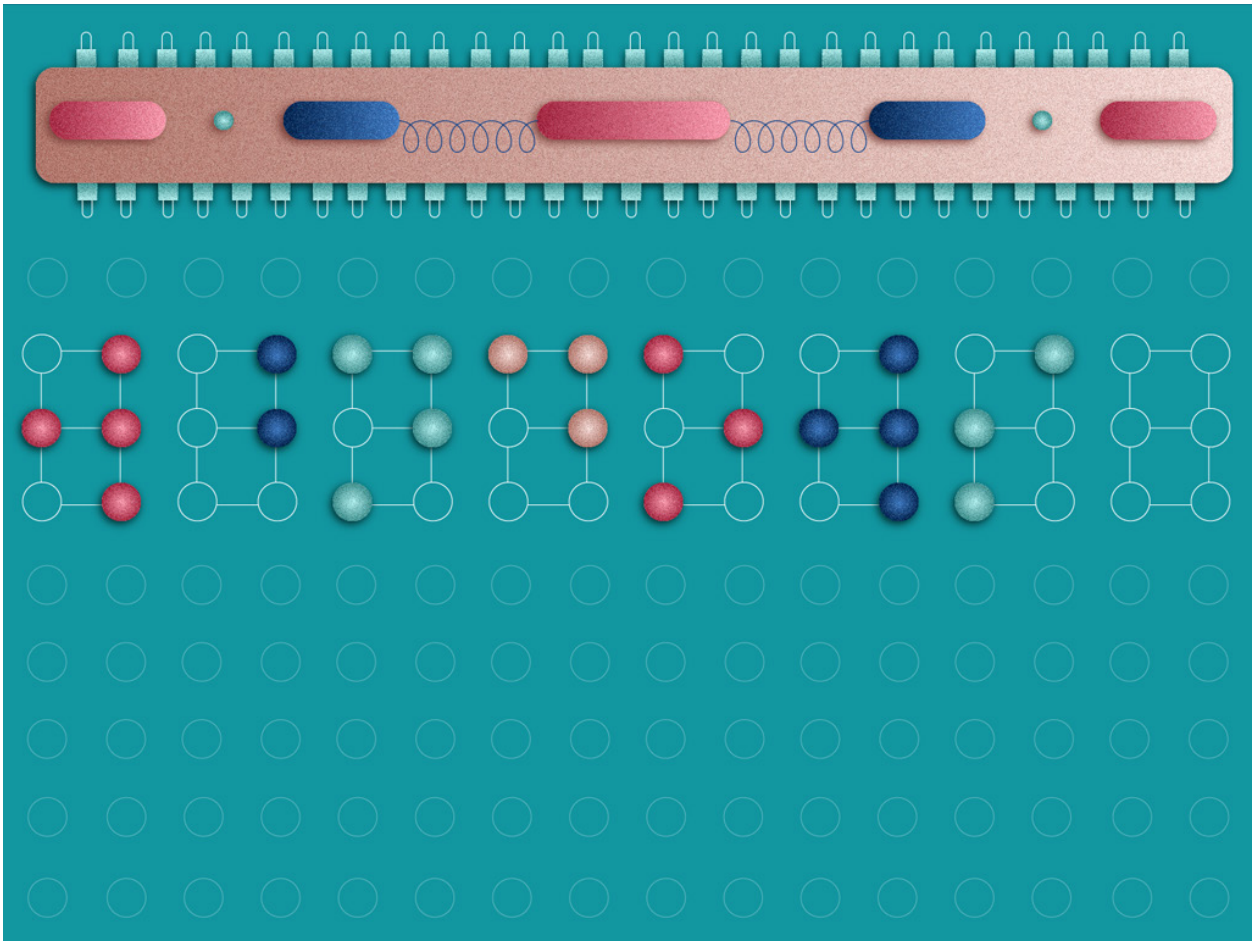
The Luminous Planet In Trouble includes sixteen games

1. Break The Code

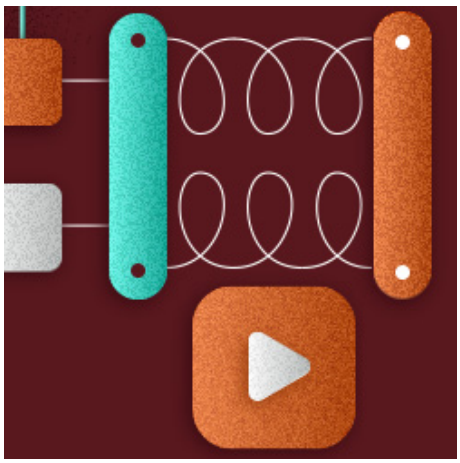


Guess the password encrypted with Braille.
We have 70 passwords to decrypt in play.

The Lumies have left an encrypted message for you using coloured LEDs. To find out what letter stands for a single code, select it and then choose the letter that corresponds to it. Decrypt the entire password this way!

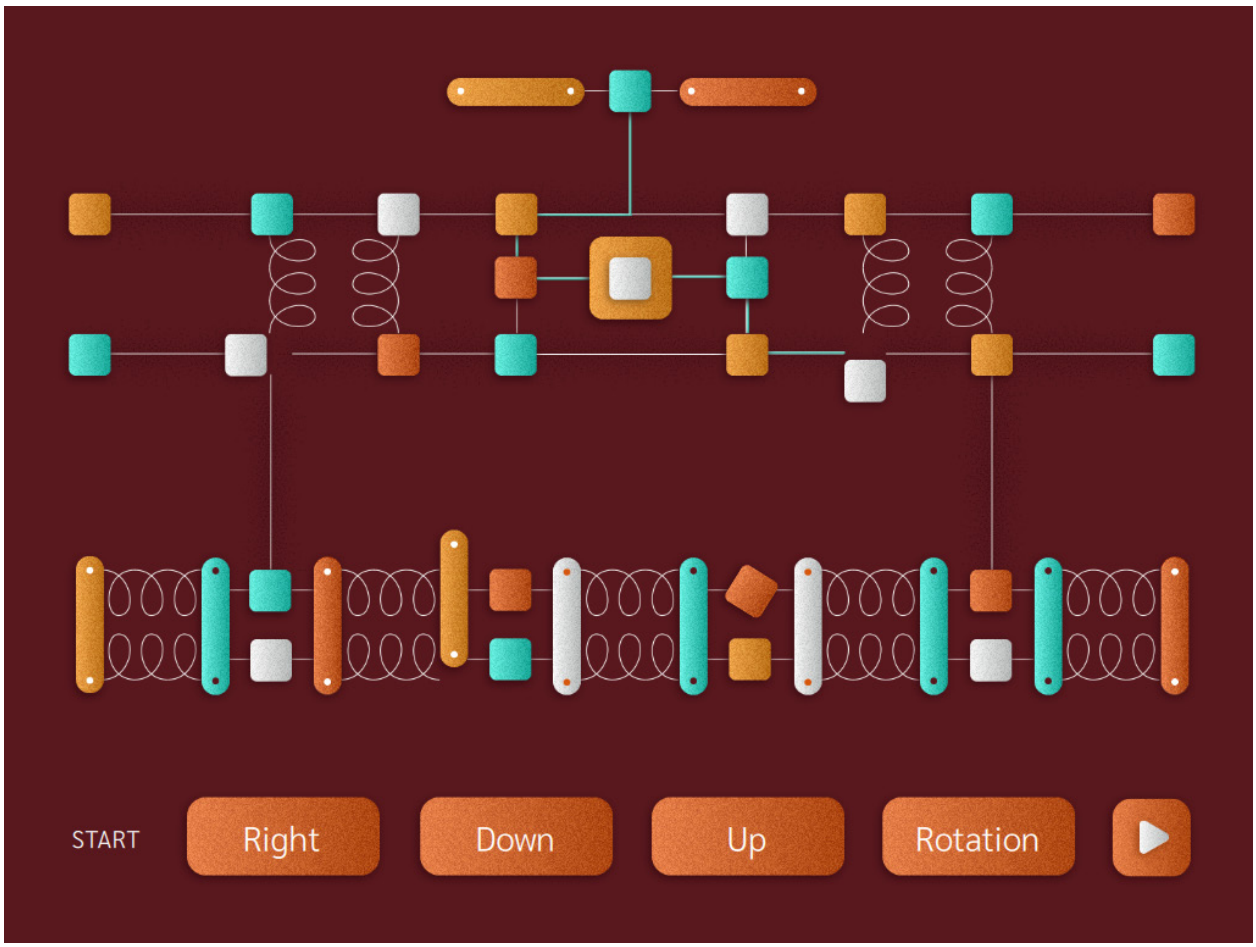


2. Code The Lumies

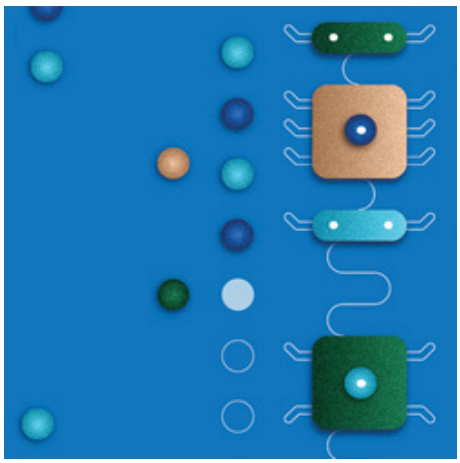


Write a chip repair algorithm.
There are 20 repair algorithms to arrange.

Energetic connections between the Lumies are very important. Look for errors in the energy flow and fix them by setting the Lumies correctly. From the instructions at the bottom, create a repair algorithm, according to which subsequent Lumies will rotate or move. You can change the order of the instructions with a stomp.

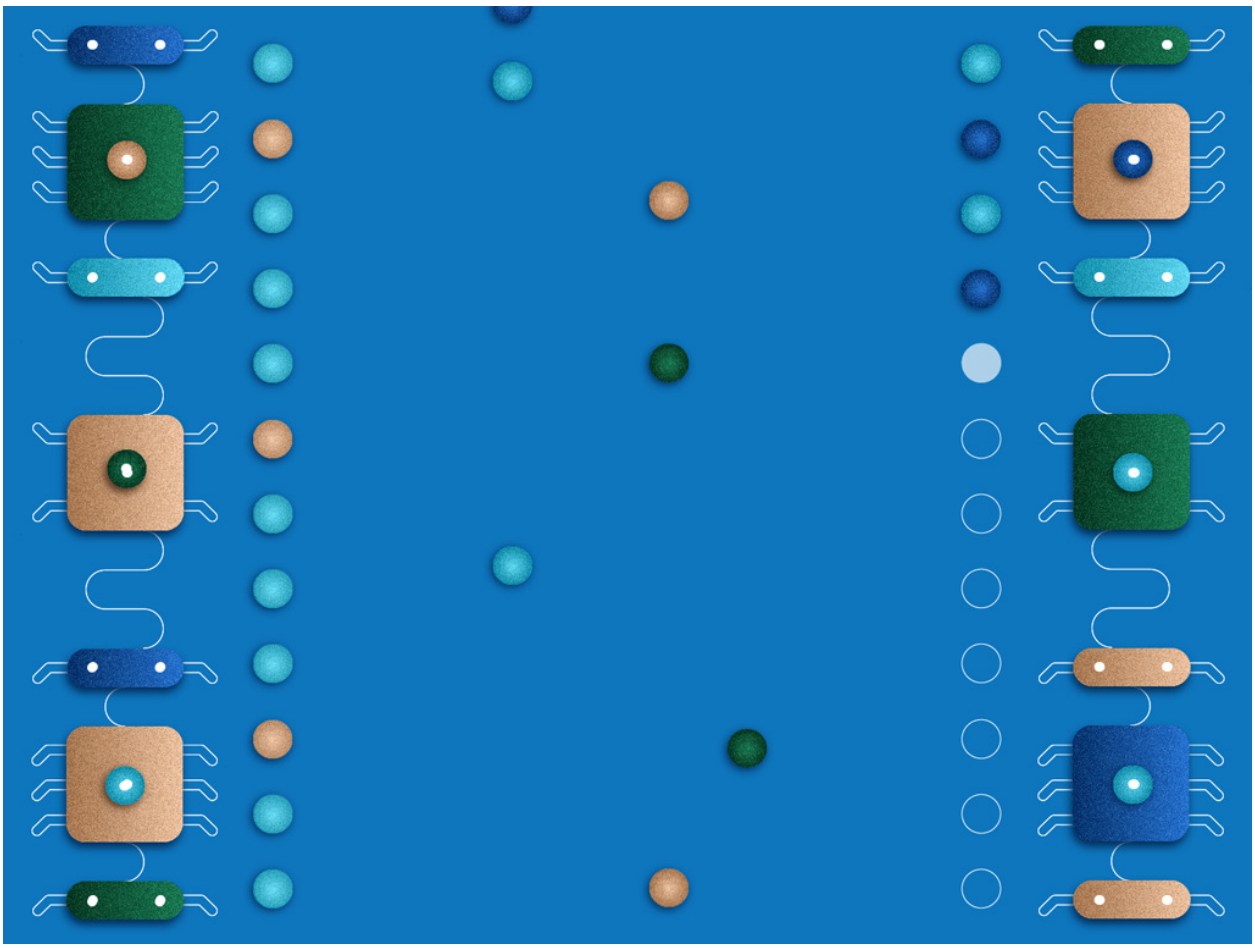


3. Data Is Coming

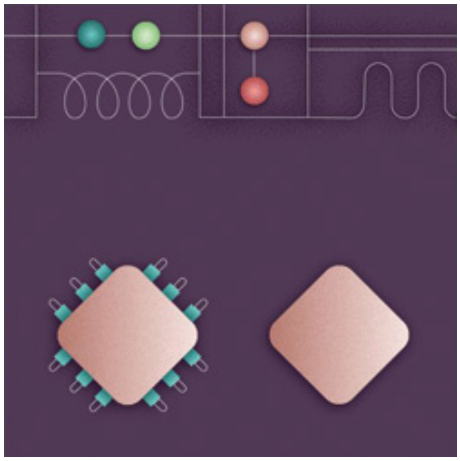


Assign the correct lights to the appropriate base.
In the game we have randomly selected colours and patterns of lights to be arranged.

Lumies use light data to compose new messages. Some of the data in the database has been destroyed. Fortunately, new data comes from time to time, so updating the database is possible. Complete the missing LEDs in the sequence from the falling lights by selecting the ones that match the pattern.

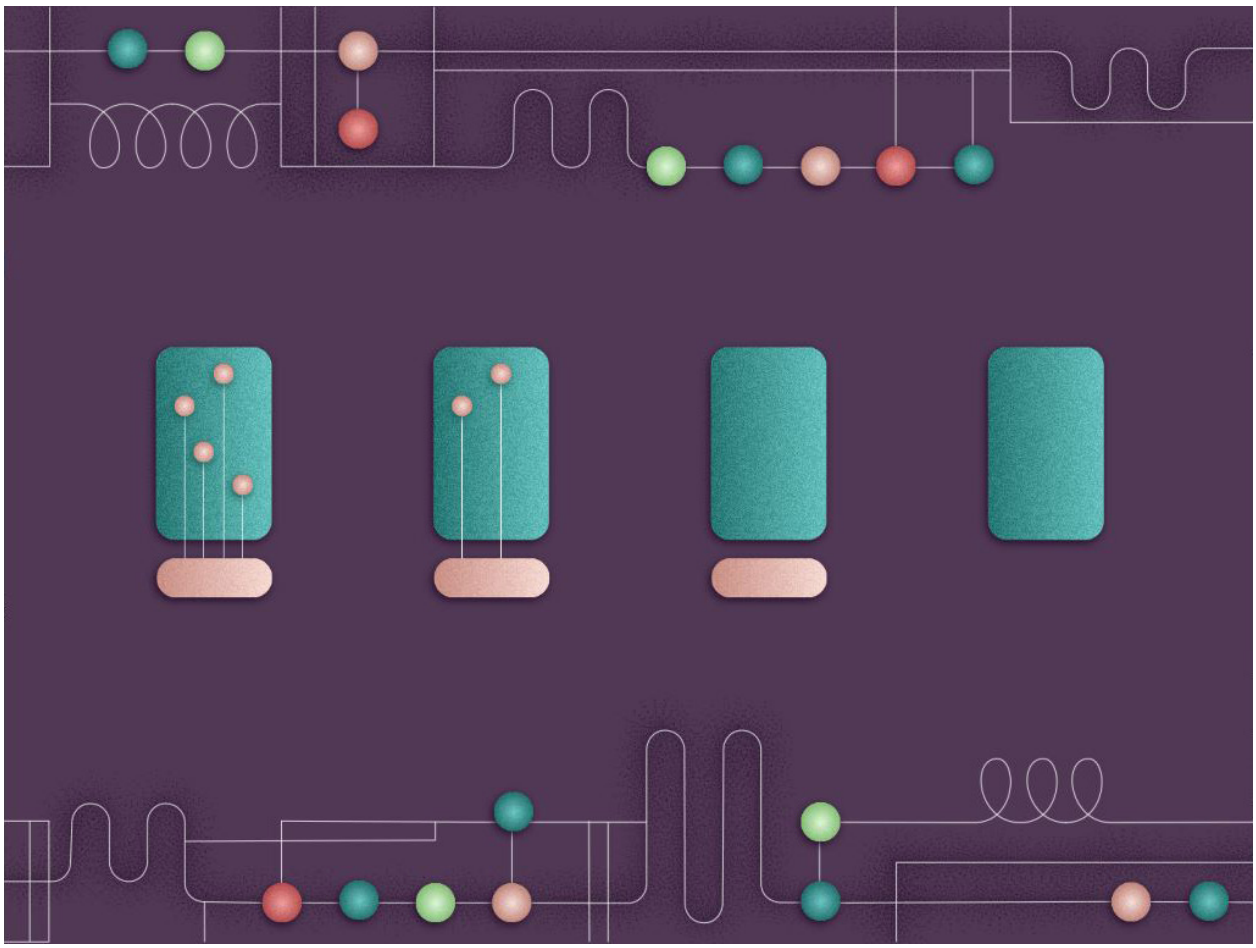


4. Fold The Lumies

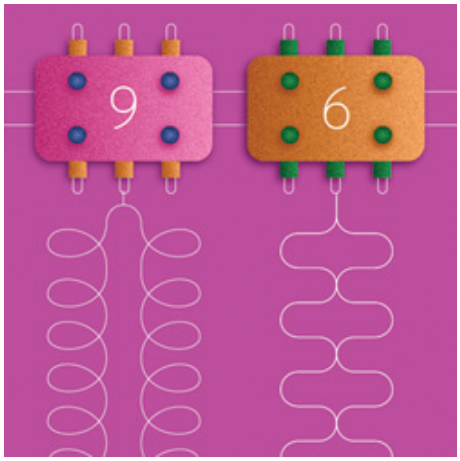


Sort Lumies according to the number of owned items.
We have 20 Lumies to assemble in the game.

Following the Draconid invasion, some Lumies were destroyed. Create a step-by-step guide to fix each Lumie. Arrange the Lumies in the correct order by swapping two adjacent to each other so that from left to right they are arranged according to how many items you have - from the simplest to the most complex.

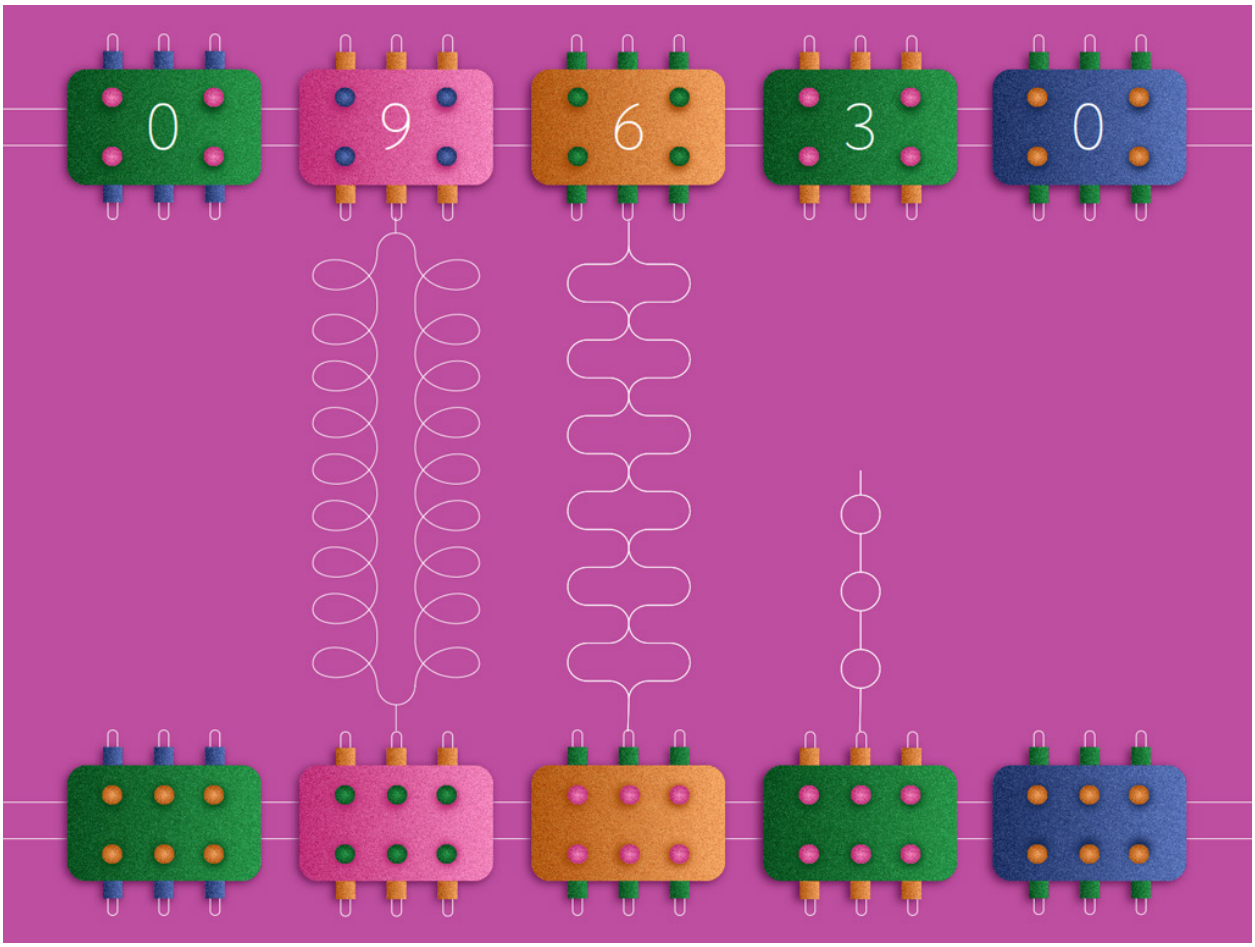


5. Looped Lumies

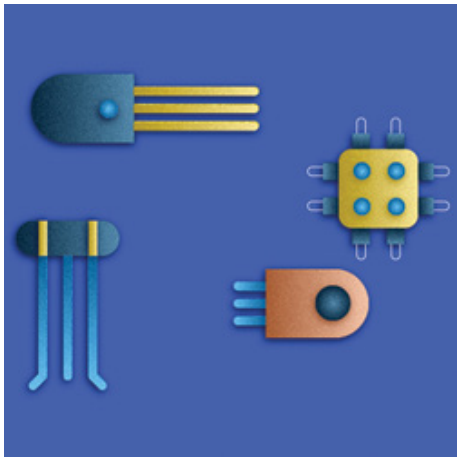


Repeat your move as many times as needed up to creating a connection.
In play, we have 5 pairs of Lumies waiting, to connect them together.

The energy between the Lumies stopped flowing. It can only be restored in one way - by stomping the appropriate number of times on the selected Lumi. The number of your stomps is shown in the Lumi at the top. Be careful not to overdo it. Just stomp as many times as needed!

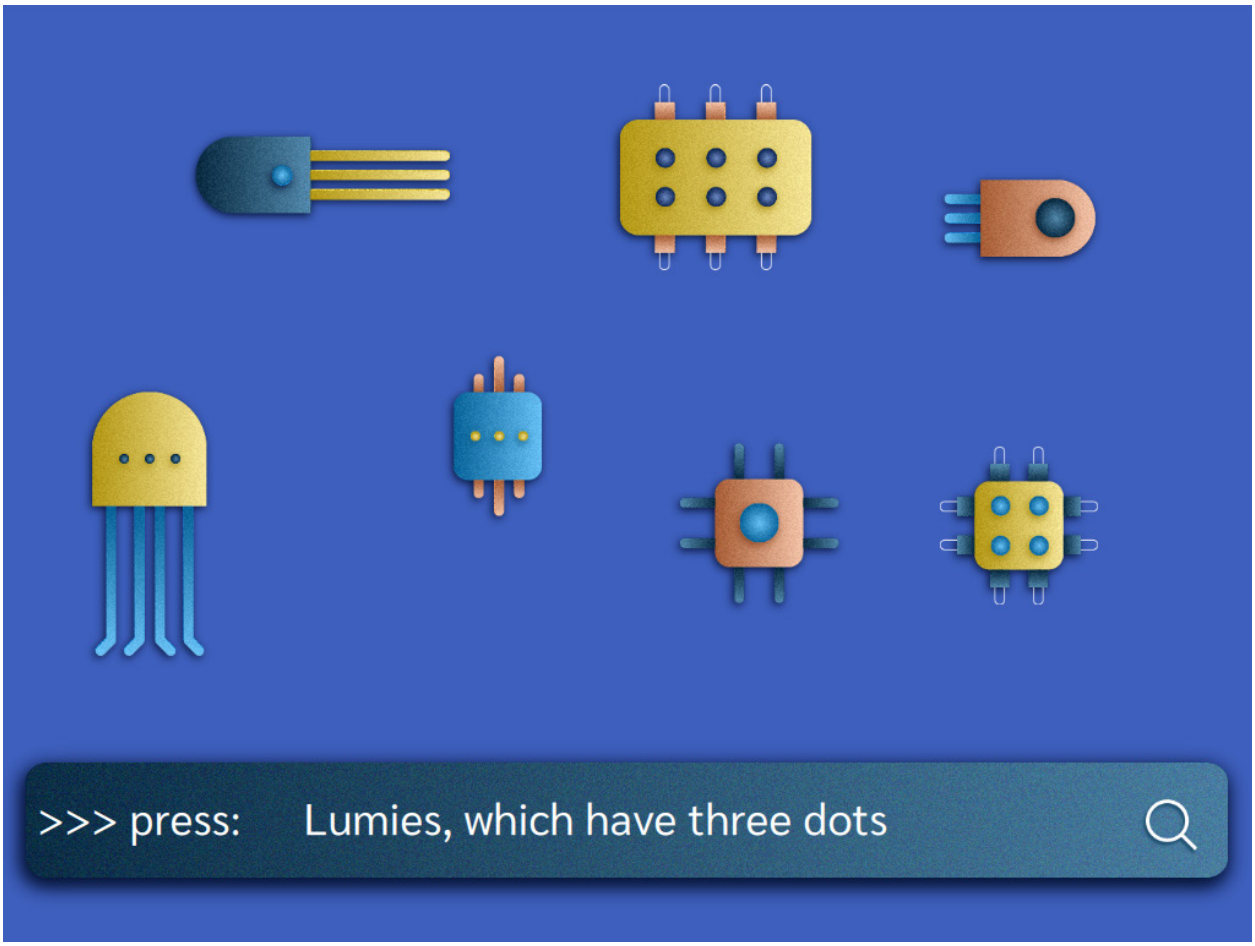


6. Lumies Finder

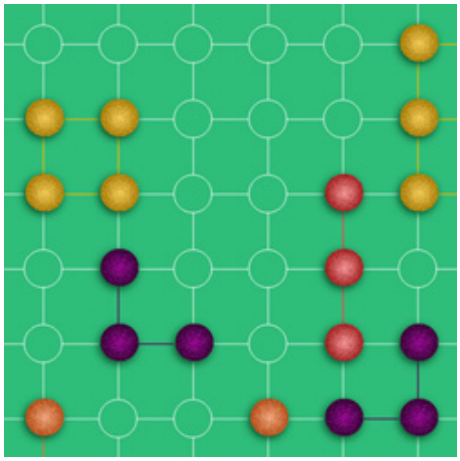


Find Lumies that have a specific trait.
There are 13 Lumie search criteria in the game.

Each Lumi has its own special features. Unfortunately, after the Draconid invasion, it’s hard to assign tasks to the right Lumies. Help them! Draw a trait by tapping the magnifying glass and then stomp on Lumies that have specific traits.

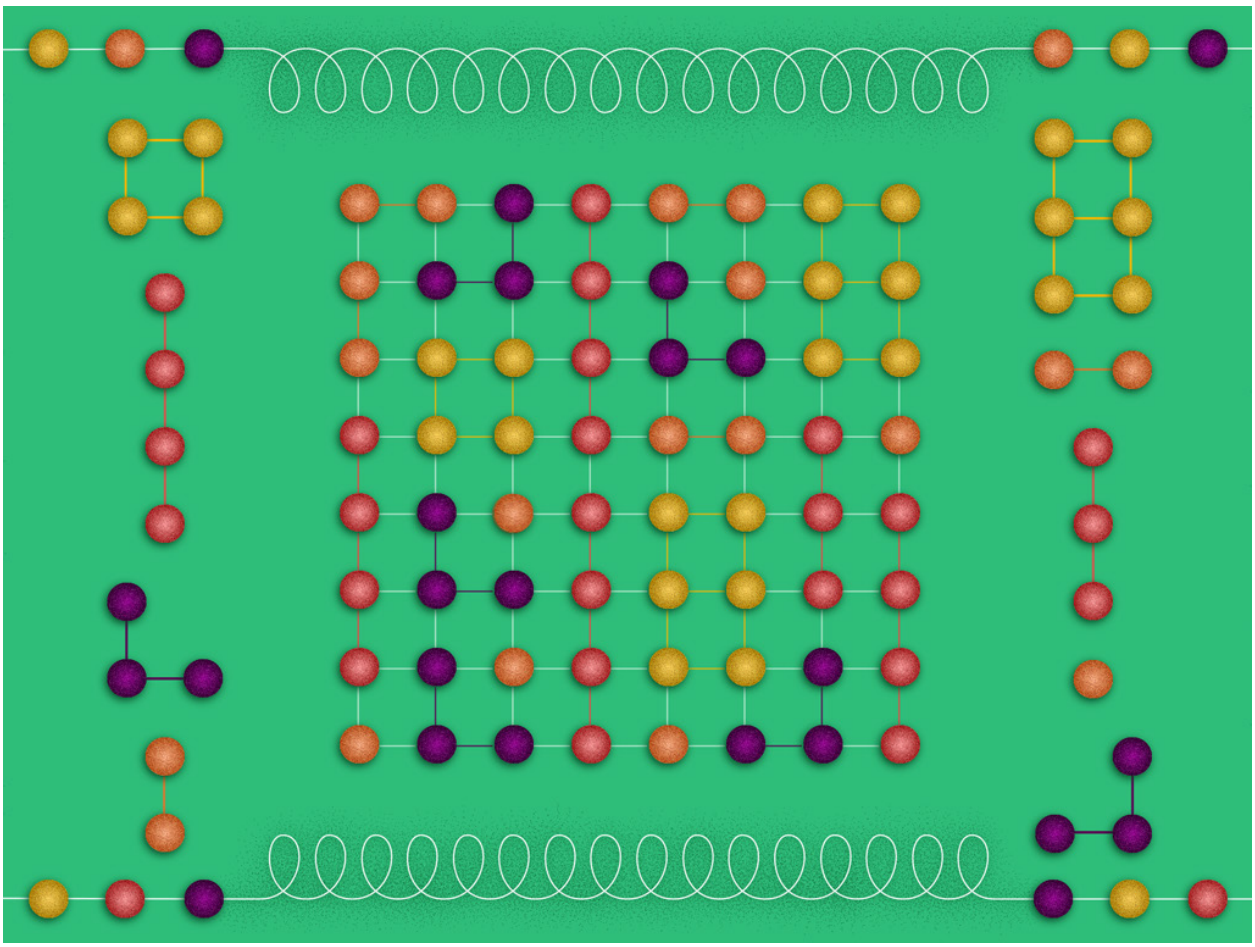


7. Luminous Puzzle

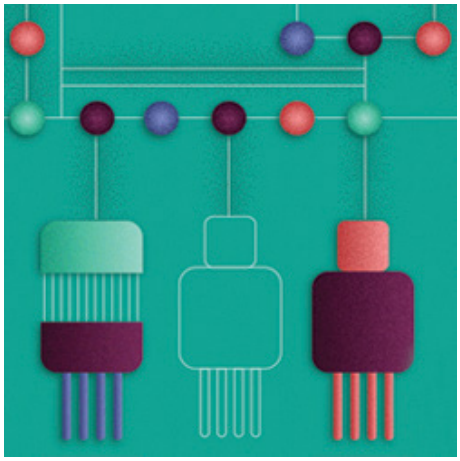


Think about it and put together a composition with matching pieces.
In play, we have one set of puzzles that can be put together in many ways.

Information processing systems were destroyed by falling Draconids. Build them from scratch by filling the entire board with combinations of coloured LEDs so as not to leave any empty spaces. Select an element and tap it to the correct place. Thanks to you, new messages will reach the planet!

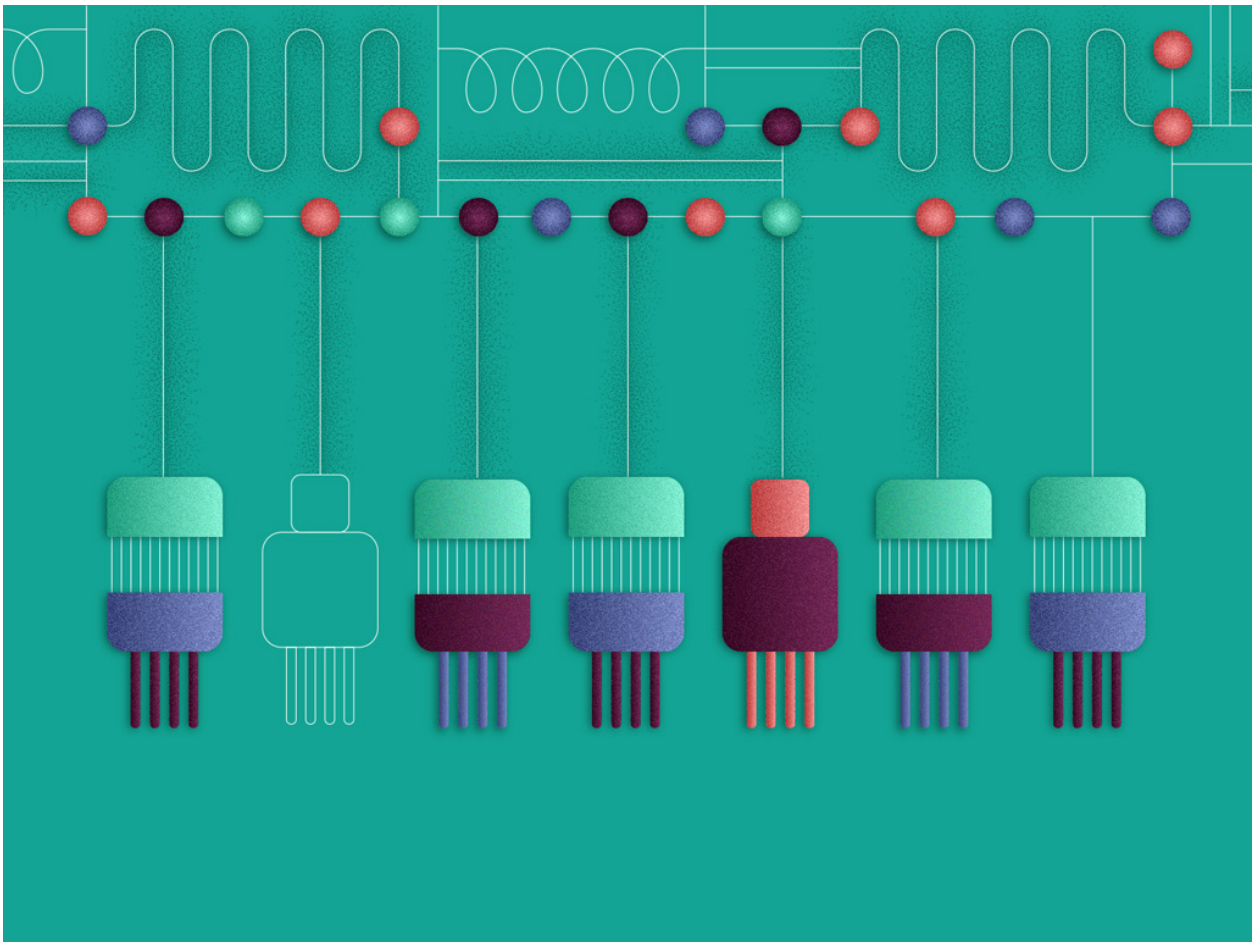


8. Missing Lumies

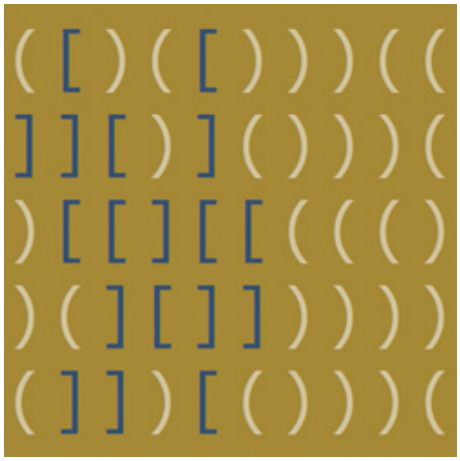


Recognize the pattern created by the Lumies.
There are 6 patterns to recognize in the game.

The Draconid invasion caused some Lumies to get lost. Identify what Lumi should be in the empty part of the sequence and stop it by stomp. Thanks to this, you will help him return to his place and the planet will be in order again.

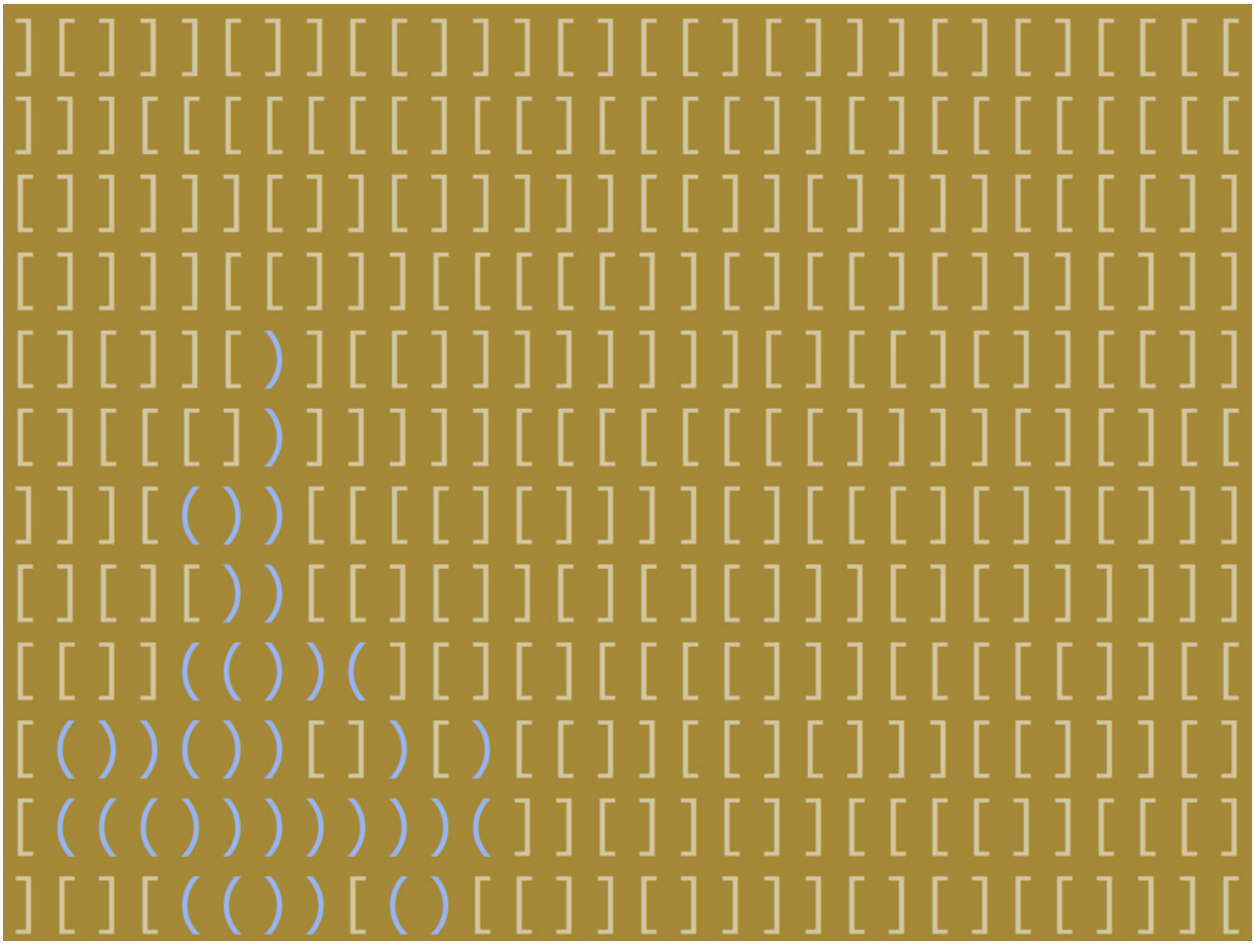


9. Old warehouse

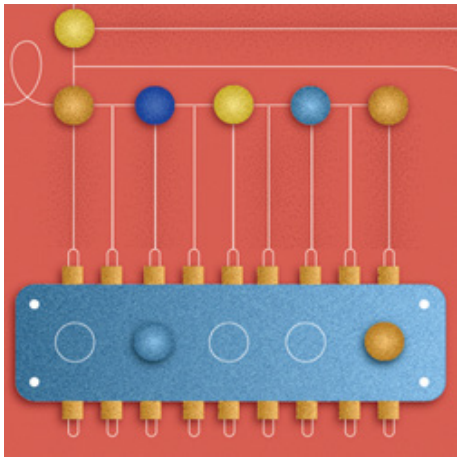


Look for non-matching special characters.
In play, mismatched characters appear in random places.

In the old warehouse Lumies keep organized chars needed for programming. After the Draconid invasion, mismatched chars appear. Remove them by running around the board. Hurry up because new ones keep coming out!

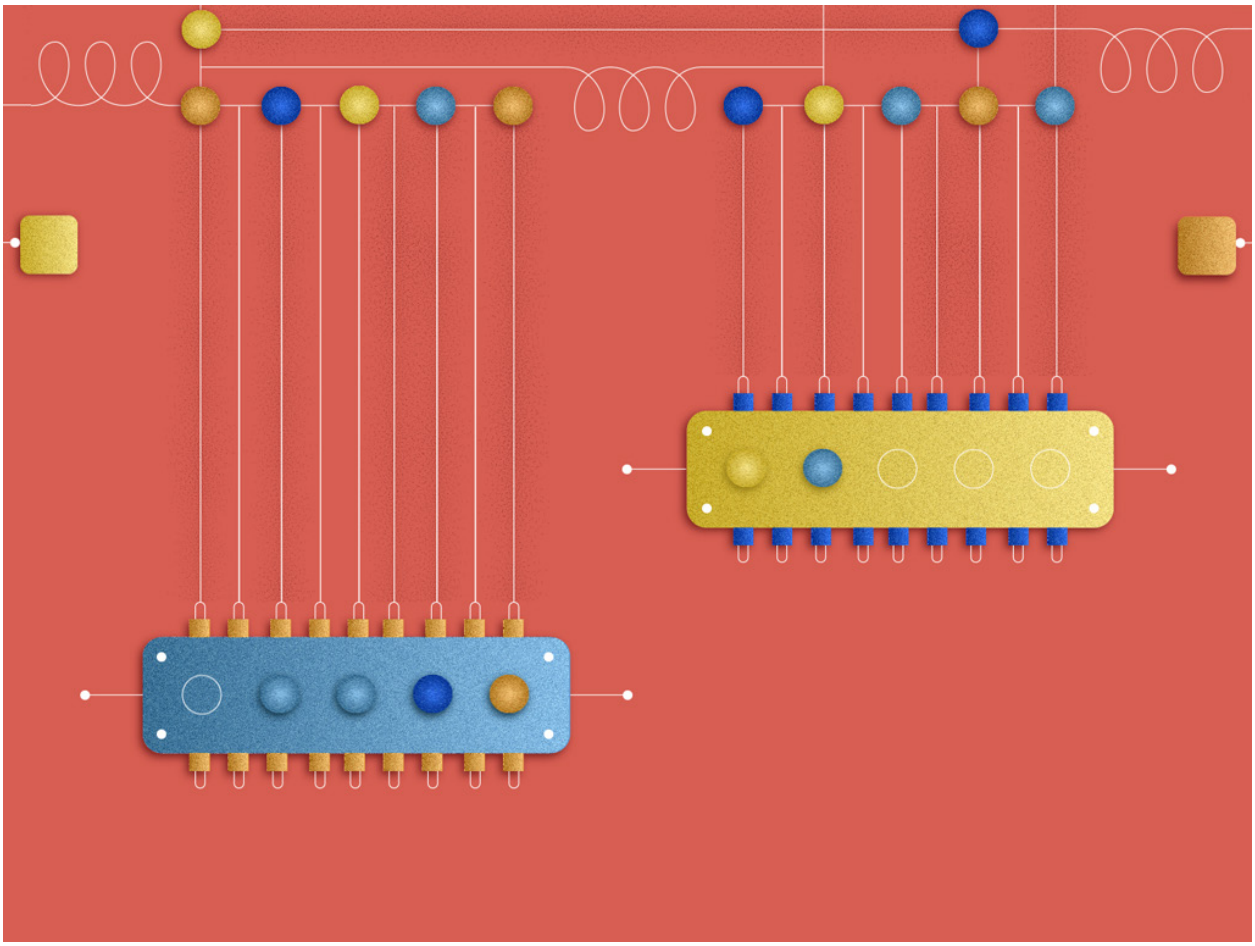


10. Plug In

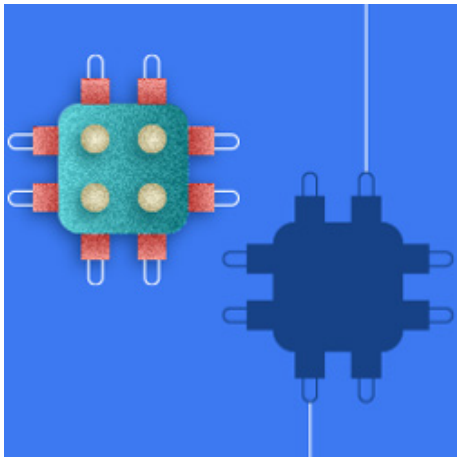


Fulfill the condition for energy to flow.
In the game we have a random setting of Lumies and plugins.

After the Draconid invasion some connections had been severed. Position the Lumies at the level of the plugs by lighting the appropriate number of LEDs for each Lumi by tapping the LED. Thanks to this, the energy will flow again between the inhabitants of the planet.

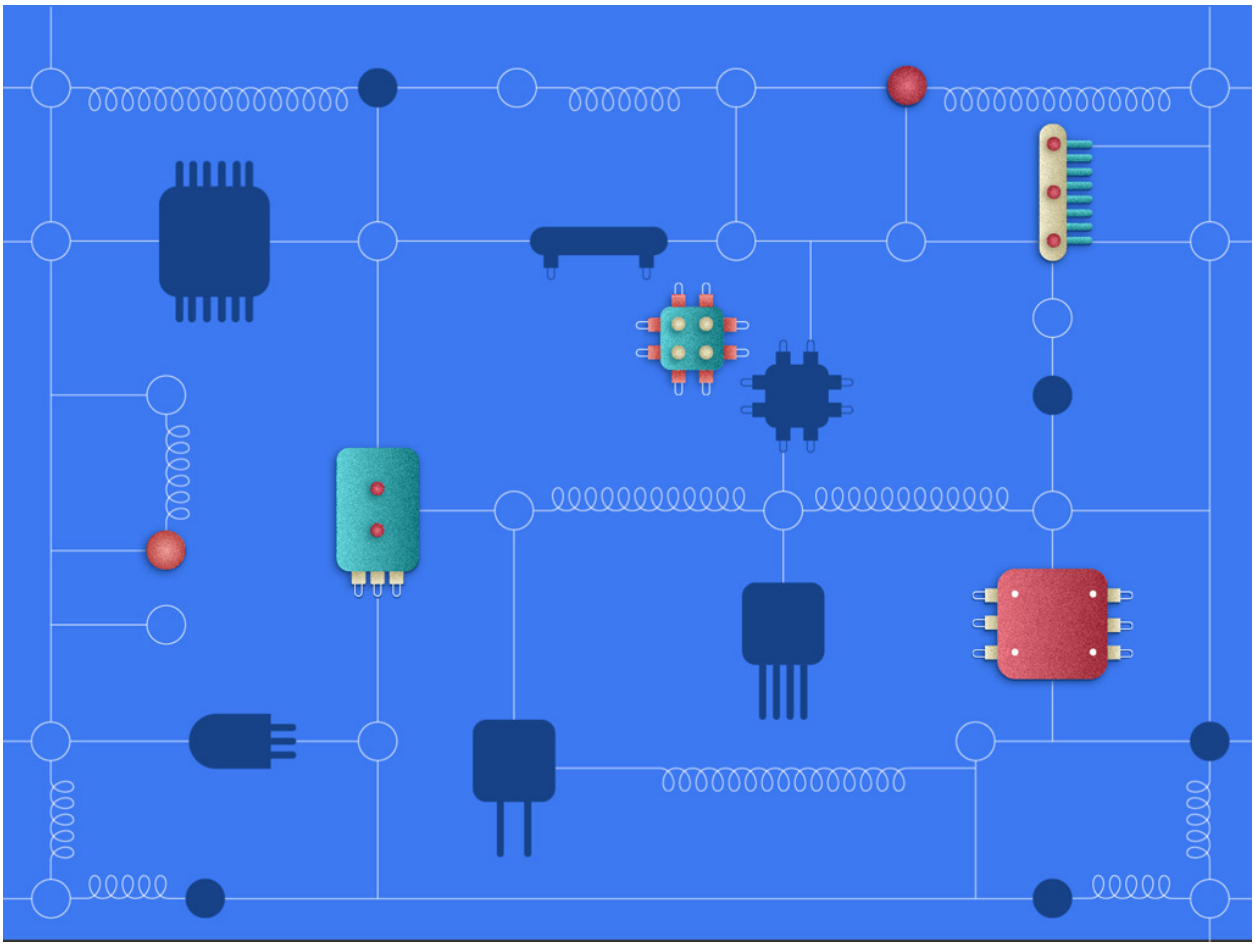


11. Reconstruct The System

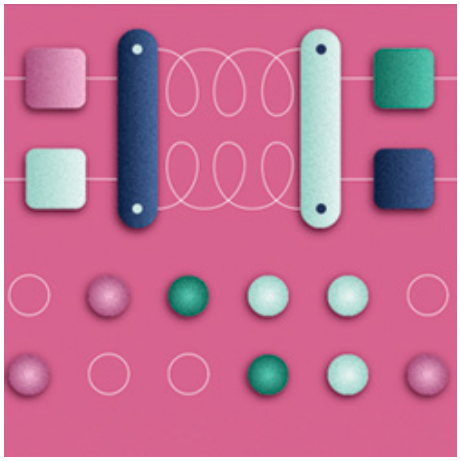


Merge the Lumies into a layout as per specification.
We have 5 layouts to reconstruct.

After the Draconid invasion, chaos ensued in the orderly Luminous Planet, and the Lumies scattered the board. Insert the appearing Lumies in the correct places in the layout, adjusting their size and shape to the shadow they have left behind.

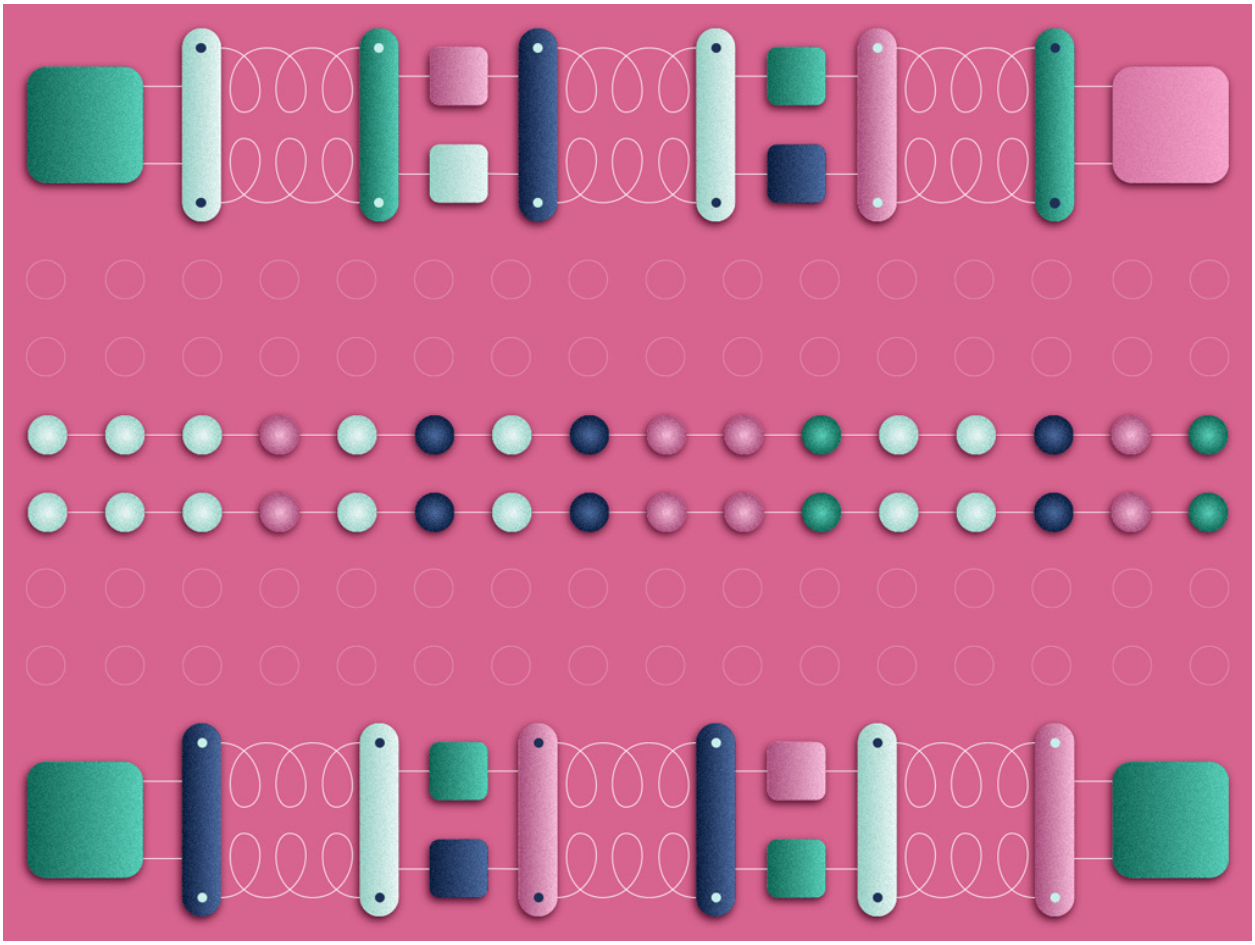


12. Recover Code

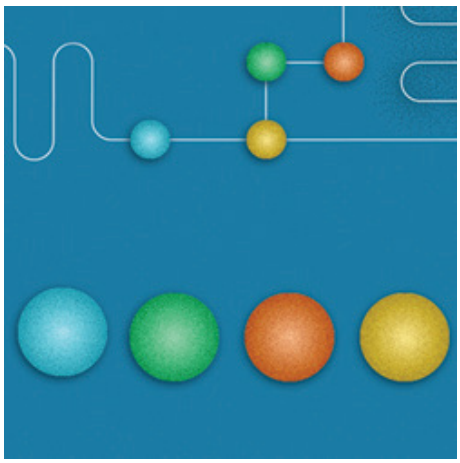


Map the light code by copying the pattern from the base. In play, the pattern of lights is random.

Lumies keep backups in a planetary base in case of code loss. Some lines of code got damaged during the Draconid attack. Help restore the correct code version! Tap the selected LED from the bottom row to change its colour to the same colour as in the code above.

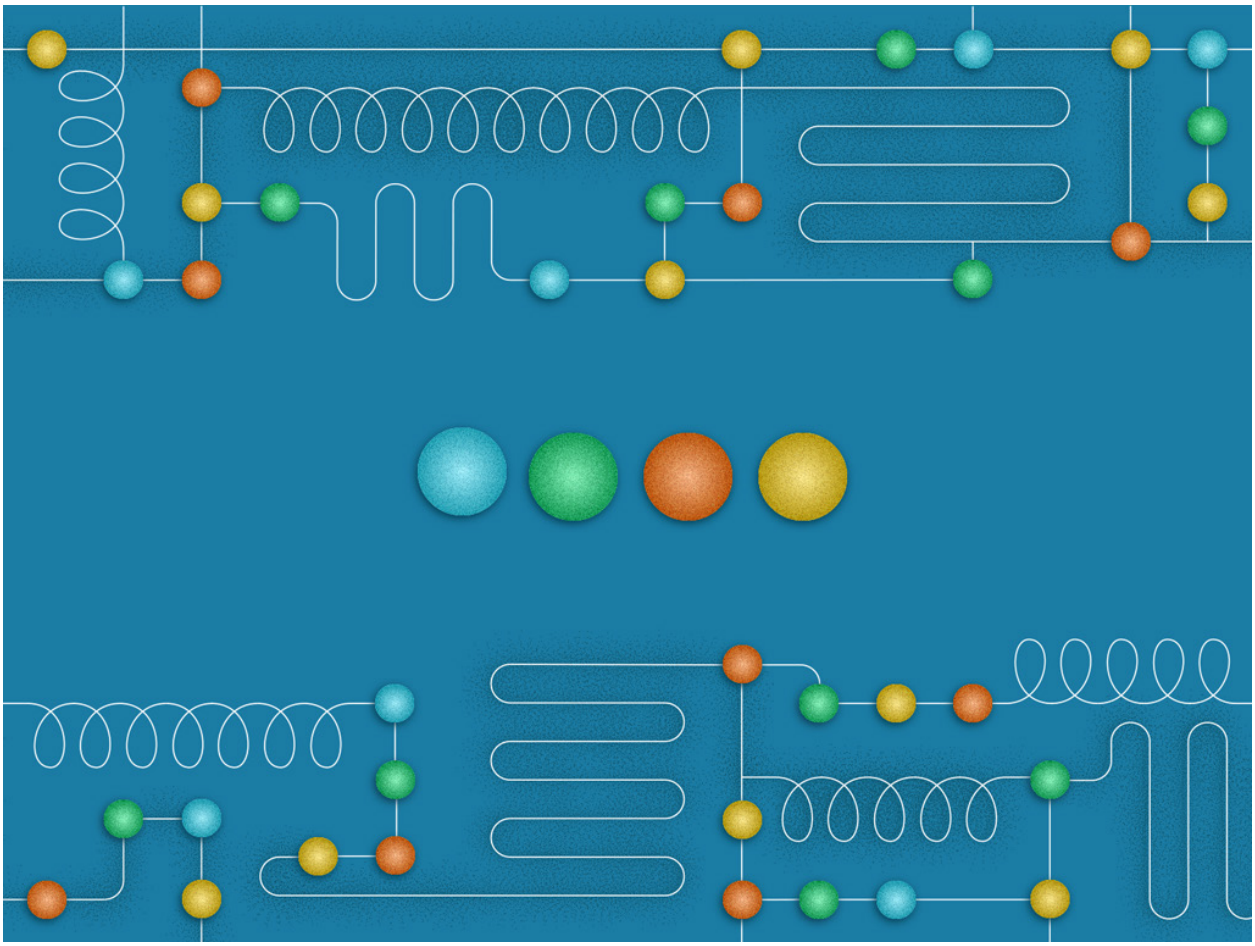


13. Repeat The Message

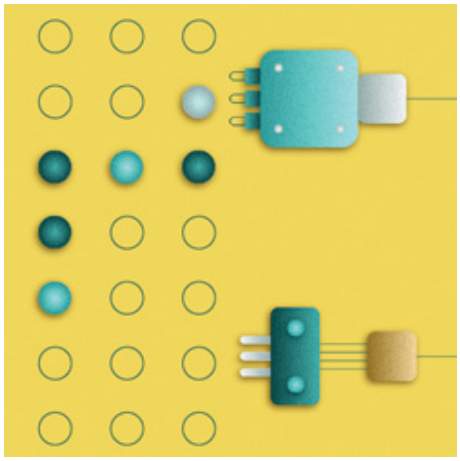


Repeat the beep sequence after the Lumies.
The game has 5 rounds with 10 signal sequences.
After each round, the difficulty level increases, and the sequence is extended by one beep.

After the Draconid invasion, there was very little energy left on the Luminous Planet. Amplify the Lumies' light signals by repeating the sequence of the lights. Tap the coloured LEDs in the order the Lumies wrote the message.

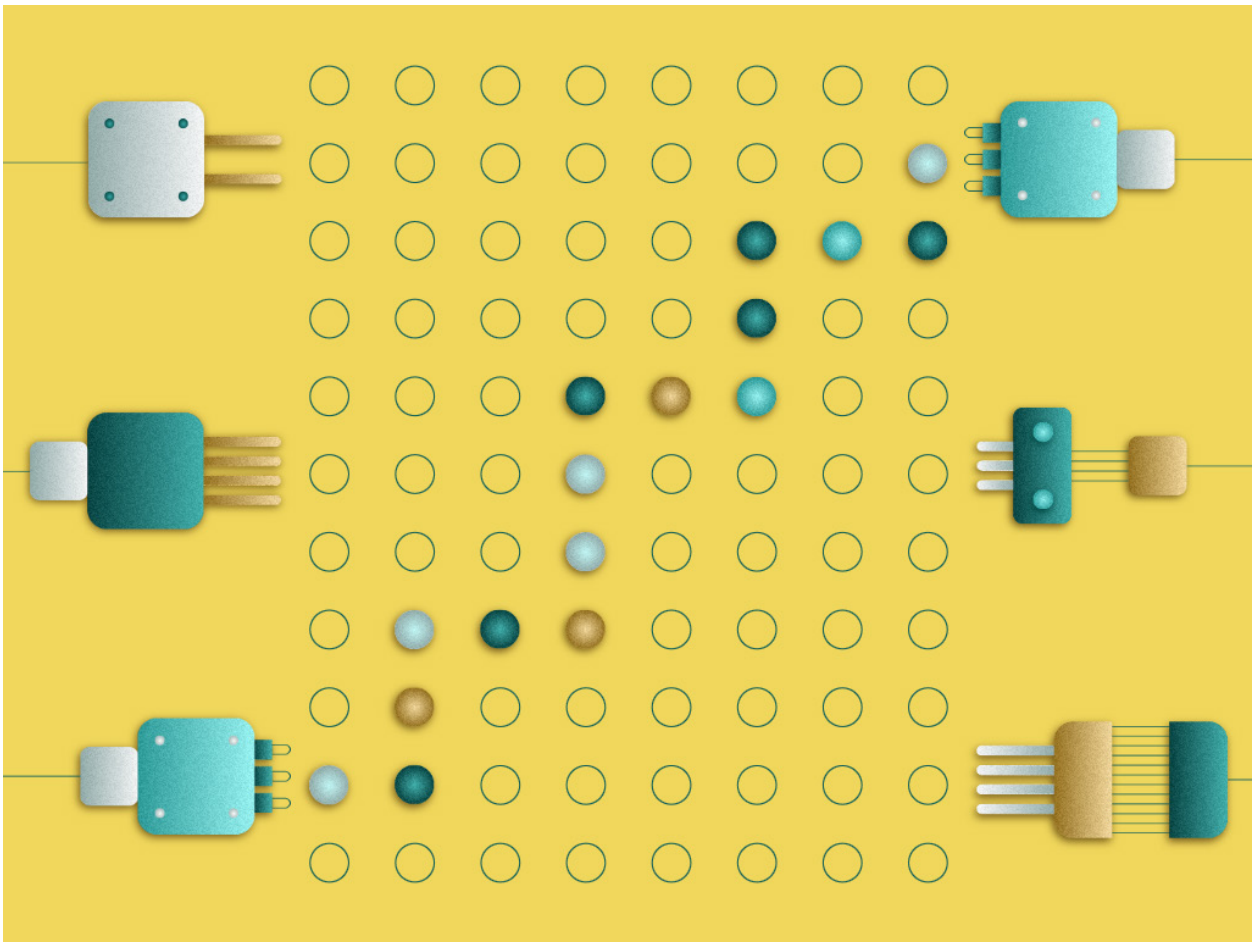


14. Show The Path

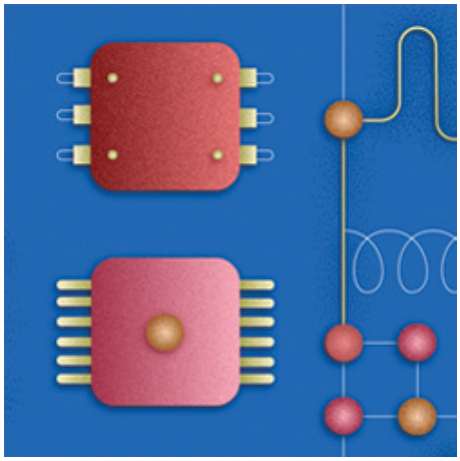


Create a communication path between identical Lumies. In the game we have a random setting of Lumies and 5 pairs of Lumies to find and connect.

The Lumi has a very important message to share. Unfortunately, communication between the Lumies was severed after the Draconid attack. Create a new path that will make them communicate again. Walk across the board to create a connection between two identical Lumies.

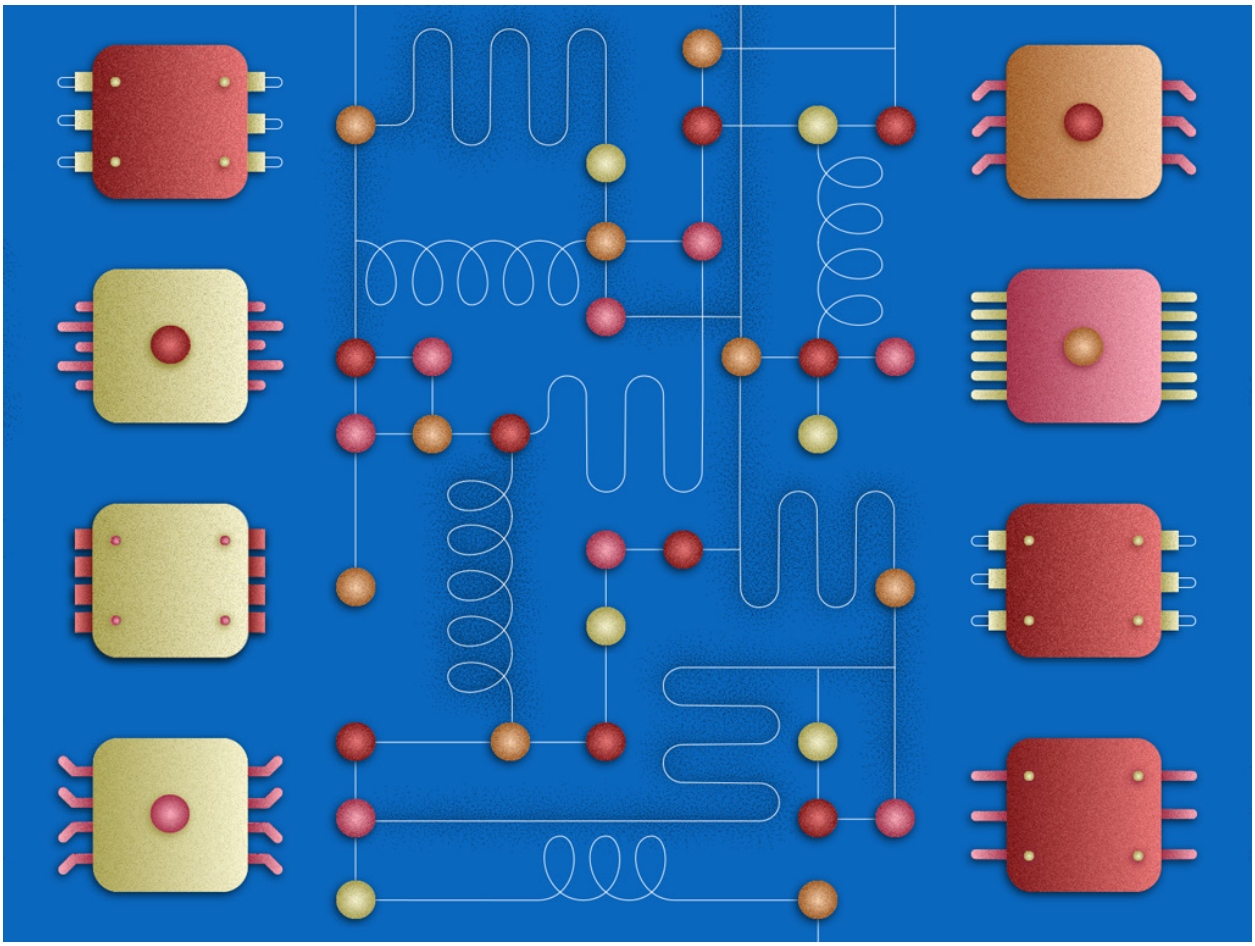


15. Synergy In Pairs

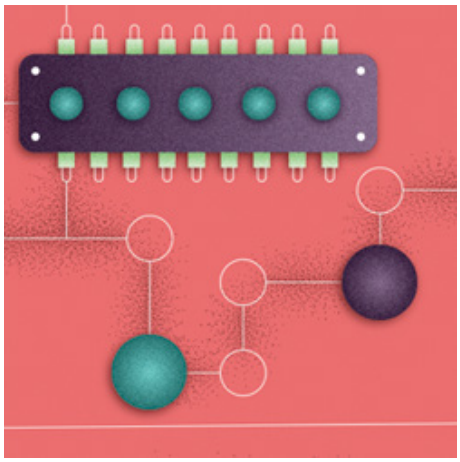


In pairs, transfer energy between identical Lumies. There is a random setting of Lumies in the game and we have 7 pairs of Lumies to find and connect.

Sometimes it is not possible to complete a task alone, because cooperation is very important on the Luminous Planet. Restore energy transmission between the same Lumies by stomping on both simultaneously. Can you complete the task yourself?

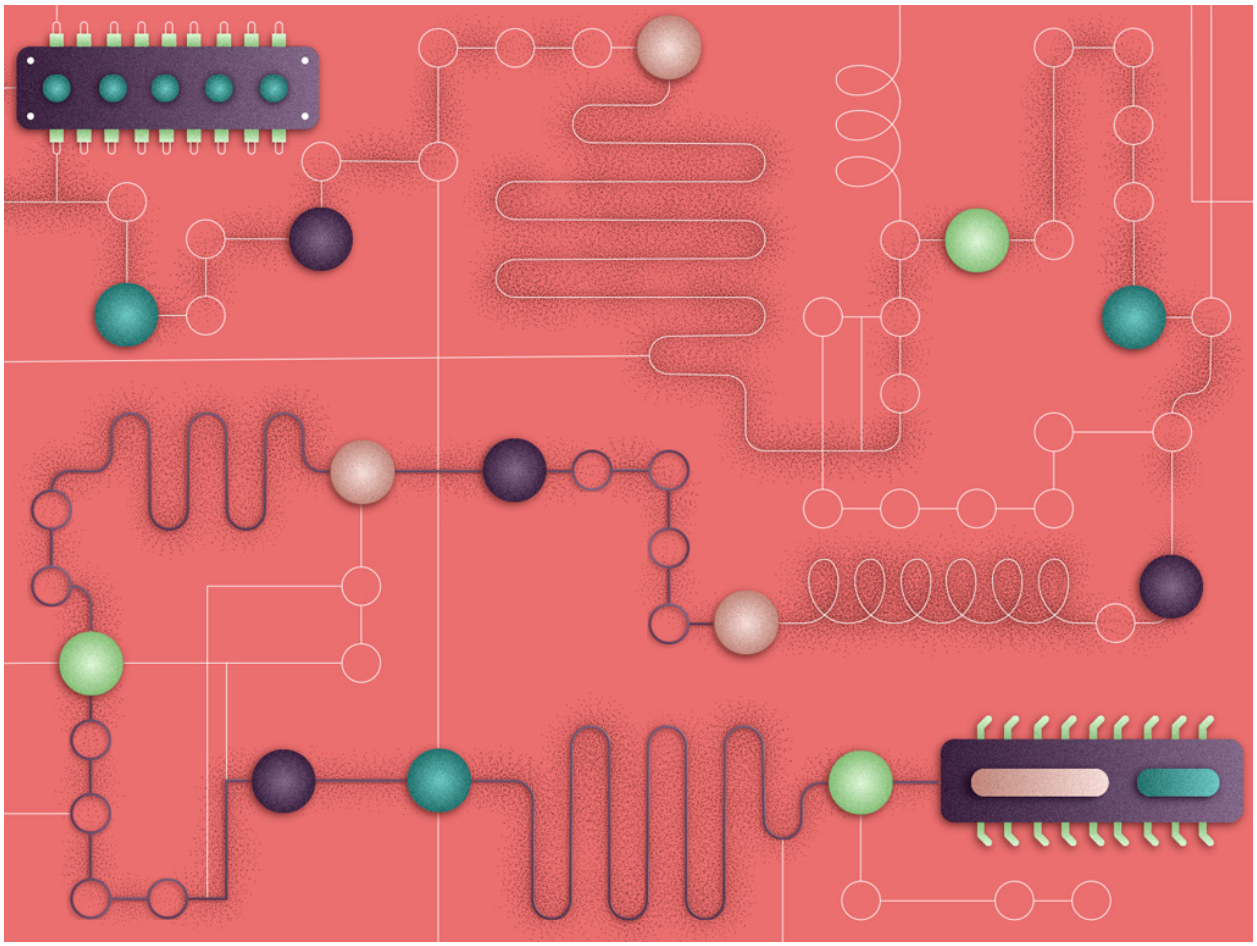


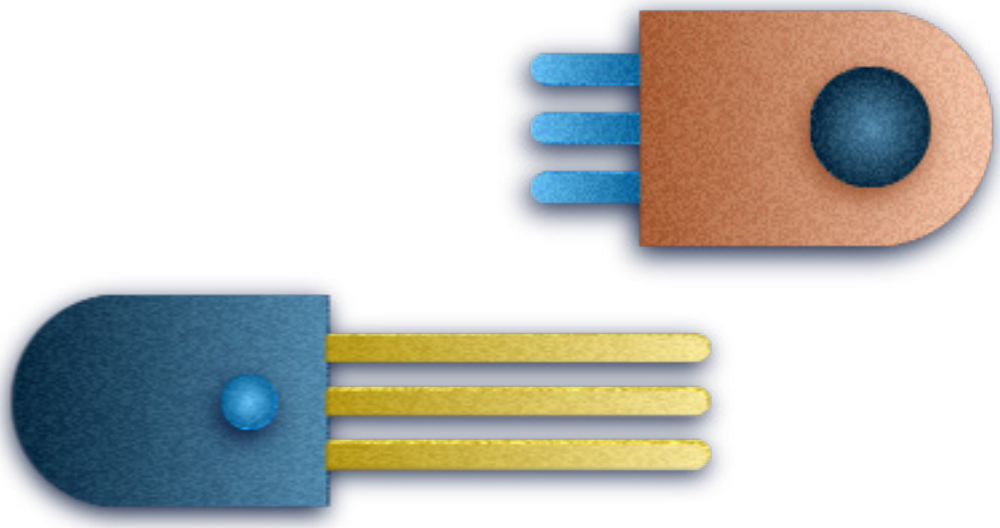
16. True or False



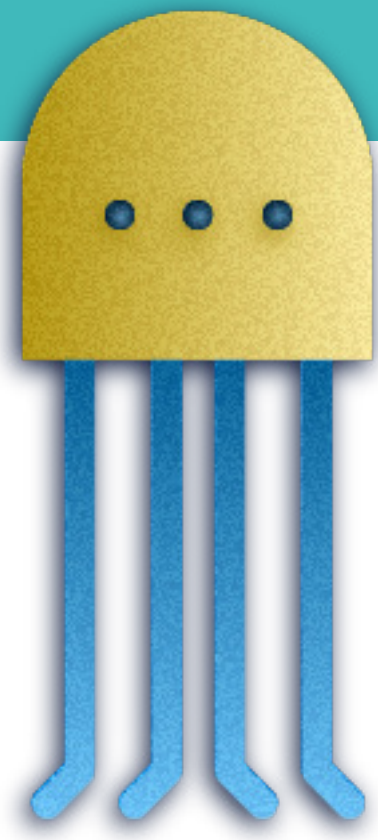
Decide whether the given statement is true or false and remove all blockages on the path.
The questions in play concern computer skills and basic programming concepts.
Number of questions: 140

There is no energy flow between the Lumies. Open all the coloured gates by solving logic puzzles. Please indicate whether the given statement is true or false.





The Lumies need Your help!
Follow the rules of energy transfer on their planet and rescue them!



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