CHAMELEON

Exemplary Gameplay

A drone has already been rolled, one field could be protected by the CHAMELEON shield

Things are already getting tricky here! A drone must be rolled quickly to protect the field.

Here, a field had to be closed because there are already three hazards on the field. If two drones are rolled at the same time later, the field can be cleared.

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CHAMELEON - Boardgame

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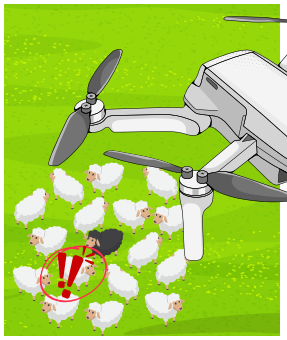
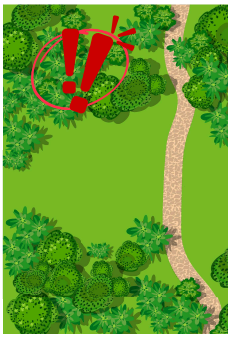
The CHAMELEON boardgame is a fun way to familiarise people with the concept of the EU-funded research project CHAMELEON.

CHAMELEON - Sustainable and digital EU agriculture, forestry, livestock farming and rural development with the help of drones and artificial intelligence

The CHAMELEON project aims to increase safety in agriculture, livestock farming, forestry and rural areas by using drones and artificial intelligence* to recognise hazards and enable rapid intervention. These hazards include natural hazards and fires, e.g. damage caused by storms, snow loads and landslides, but also plants that are infested by pests or suffering from drought stress and sick or injured animals

CHAMELEON





Use of drones and artificial intelligence

Fields, pastures and forests are usually very large and not easy to keep track of. However, it is important to recognise diseases and damage quickly. This way, the spread can be stopped quickly. In the forest, it is also important to protect hikers from falling branches or other hazards.

The CHAMELEON project aims to help quickly recognise problems in large areas such as forests, fields and pastures. A drone is used to take pictures of the areas from the air. An artificial intelligence* recognises damage and dangers in the images, e.g. trees infested by bark beetles. This enables rapid intervention and the bark beetle is stopped! Artificial intelligence can also recognise sick or lame animals in the pasture. So the animal can be helped quickly!

*Artificial intelligence (AI) is a computer programme that can learn to solve problems and make decisions in a similar way to humans.

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www.johanniter.at/hilfe-angebote/forschung

https://chameleon-heu.eu/

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CHAMELEON - Boardgame Instructions

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In the CHAMELEON game, the players play together as a team. The **game board** consists of six terrain fields (2x forest, 2x vineyard and 2x pasture). A drone flies in the air in the centre (this field is not a terrain field). The **aim of the game** is to use the drone (and artificial intelligence) to protect as many fields as possible. .

Gameplay: The players roll the dice in turn with two different coloured dice at the same time. If a 1-5 is rolled, the respective number of eyes on the dice corresponds to a specific hazard (see Hazards sheet). If a 6 is rolled, this corresponds to a drone. (Tip: The hazard symbols and the drone symbol can also be glued onto larger dice so that the symbols can be rolled directly).

If **two hazards** are rolled, the players may choose one of the two hazards and place it on one of the terrain fields on the game board. The players can think about where the hazard might fit best: e.g. where is the hazard most likely to be? In the forest? By the grapevines? With the animals in the pasture? Why are these hazards actually a problem? Where do they cause the most damage? In general, however, all hazards can be placed on any field. The second hazard is not placed. If there are no tokens left of a particular hazard, the other hazard must be chosen. If there are no more tokens of either, no hazard is placed.

If **a hazard and a drone** are rolled, the drone may be selected (the hazard is not placed). The player(s) may then place a CHAMELEON shield on any terrain field. This removes all hazards already on the field and no new hazards can be placed on the field in the further course of the game. The field is protected.

If there are **three hazards on a field**, the field must be closed - place a closing tile (red X) on the terrain field. There are so many hazards on the field that it is no longer safe.

Only when **two drones** (two sixes) are rolled at the same time can the closure be lifted. The field is then cleared of hazards and a CHAMELEON shield is placed on the field. If two drones are rolled although there is no barrier, one CHAMELEON shield may be placed on any square (as if one drone and one hazard had been rolled).

End of the game: When all six terrain fields are either protected or closed, the number of fields that the players were able to protect together is counted.
Is it more than half? GREAT! Then you've won!

Spielvorbereitung: Game preparation: Print out all the pages, laminate the game board and the page with the game pieces if necessary. Cut out the game pieces. Get two different coloured dice or glue two dice with the danger and drone symbols.
Let's get started!

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Hazards

Landslide

Storm (damage)

Drought

Snow (load)

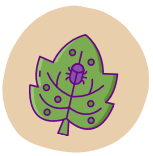
Bark beetle

Injury

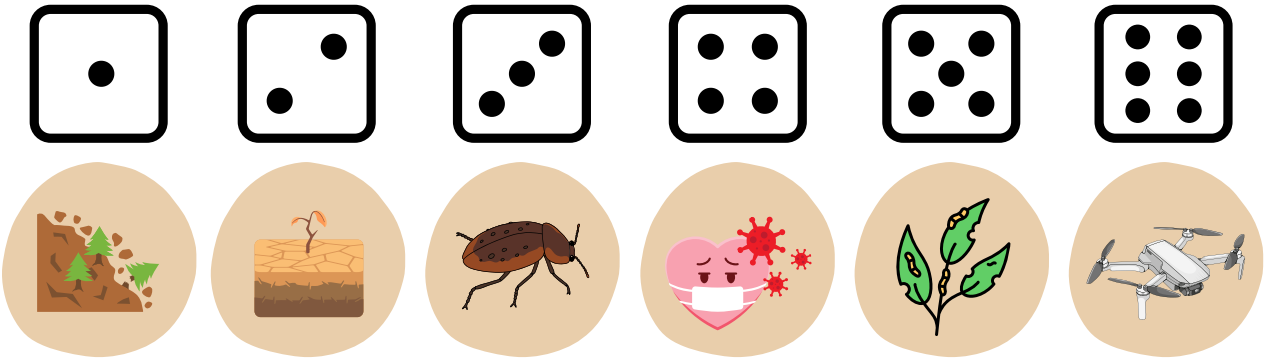
Disease

Wildfire

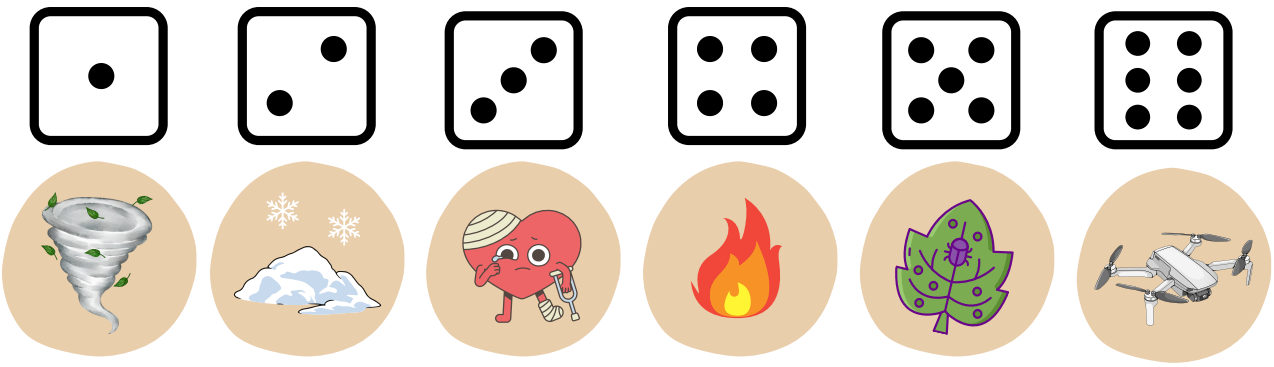
Caterpillars


Aphids

Dice 1



Dice 2



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Tokens to cut out