

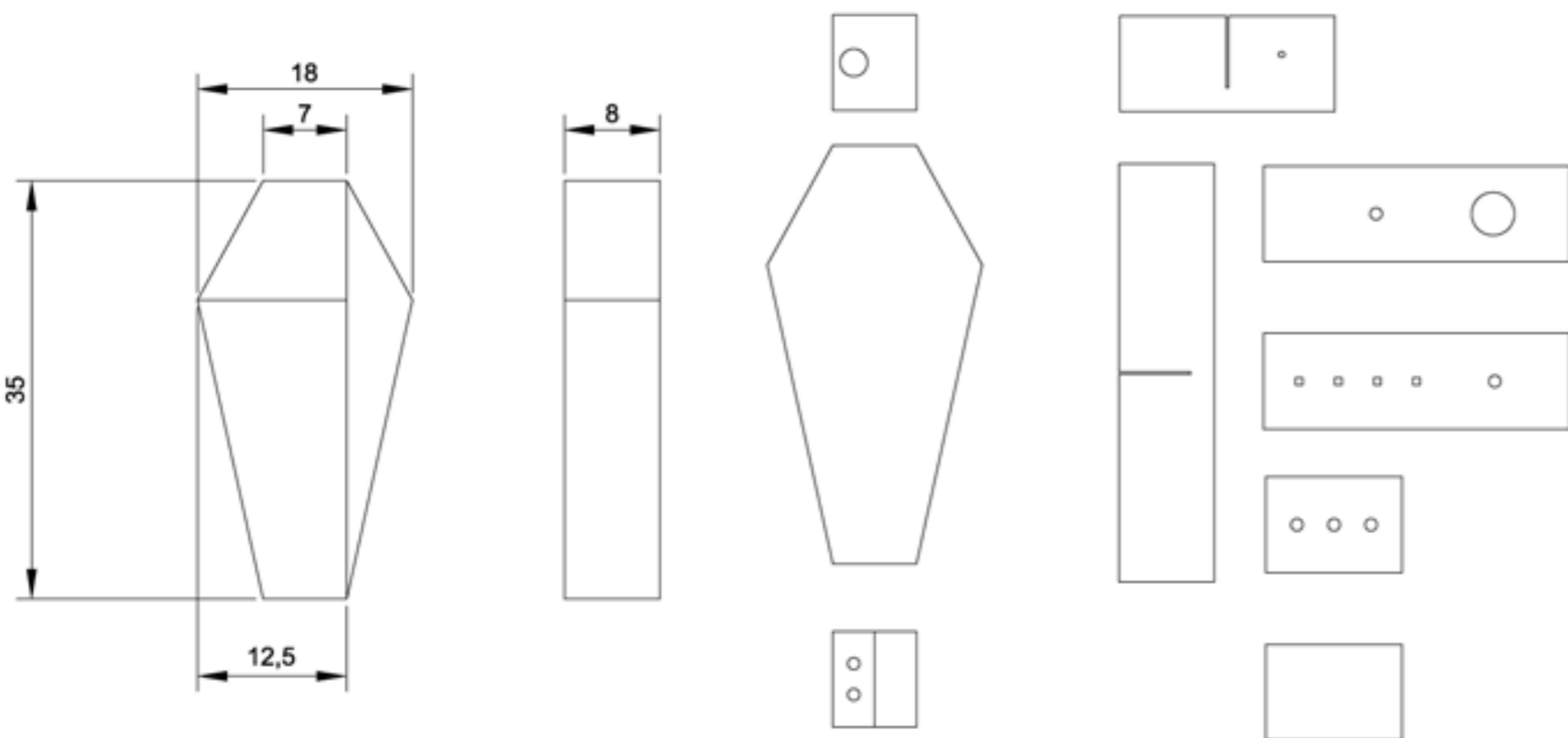
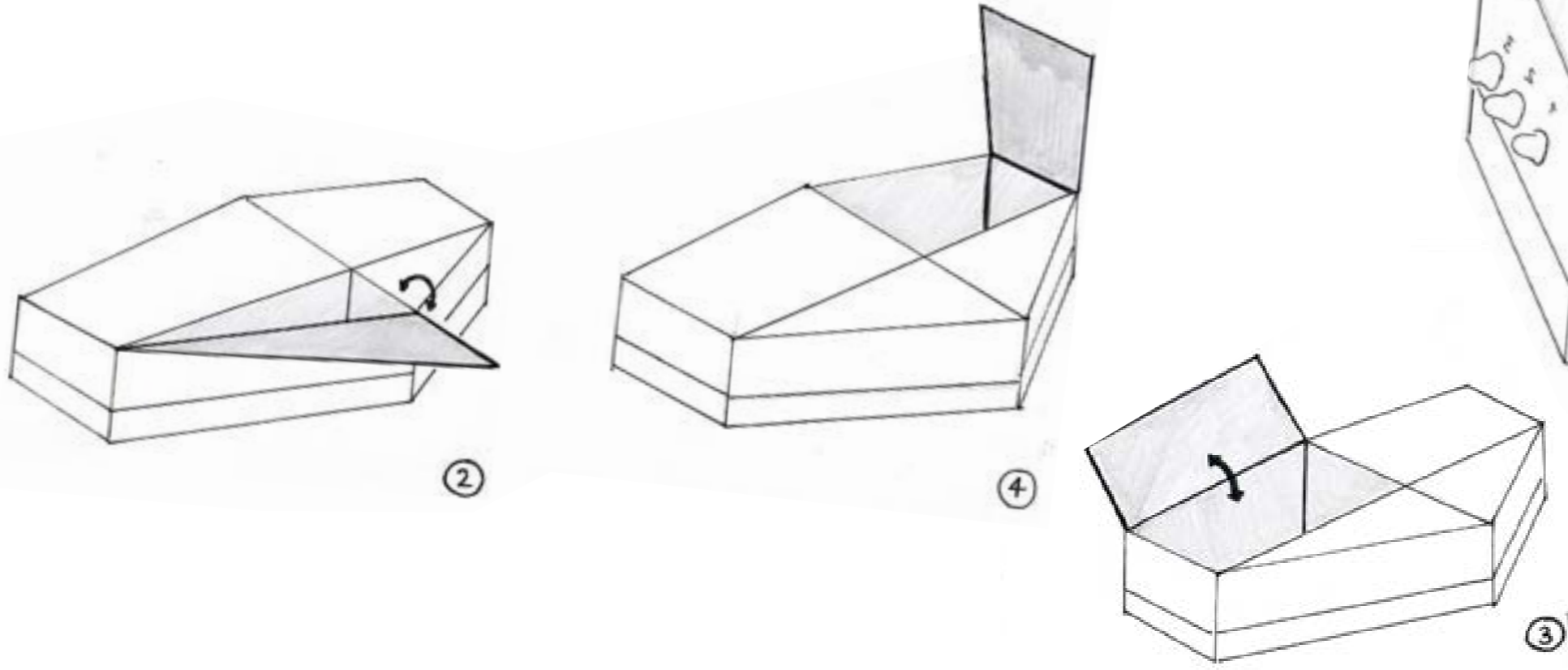
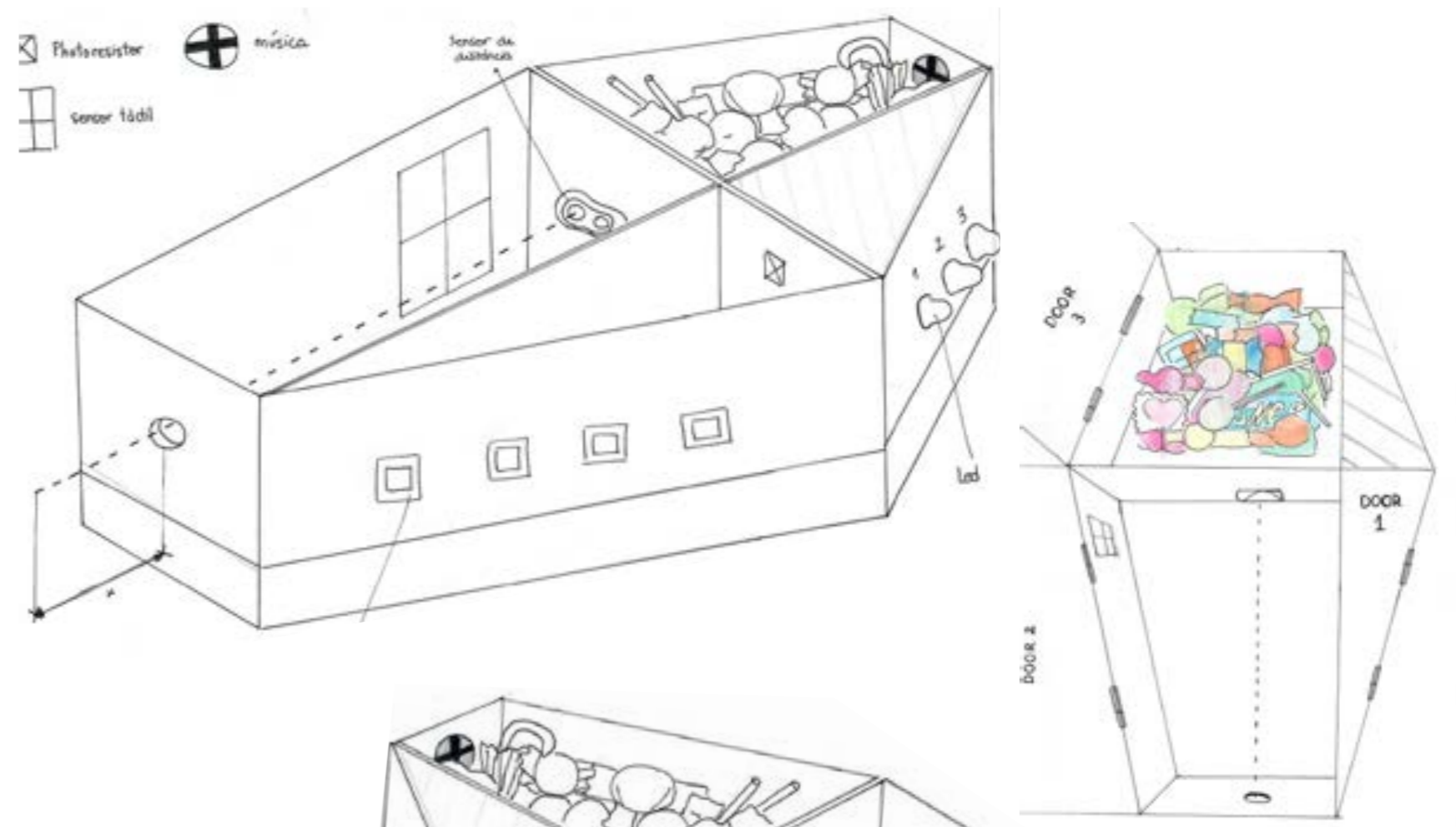
Step 4: Building the project

In this section we will see the design and construction process of our model.

As in our case we started from scratch, with a generic and not very specific idea, we had to talk together and decide on a joint approach.

1

In this way, we started by making a sketch of each of us and we put them together. We propose that this should be our action plan. Initially, we were not very clear about the position of each electronic part, and later we added the potentiometer.



As we can see, at first the game consisted of solving the different tests using the sensors and buttons, in order to open the last door and be able to take the candies. We chose this box shape in order to simulate a coffin, referring to the Halloween holiday.

2

Once we determine the main objective of the game and its distribution, we size the entire model by making the drawing in digital and limiting each distance.

In this way, it could be really useful to cut the different pieces and holes of the model, and have a certain idea of how the product would look like in reality.

3

Even so, before taking action, we made a mock-up with cardboard, in a simple and conceptual way, to see first-hand the general dimensions of the coffin. The height was an absolutely relevant aspect since we could understand how we would have all the electronic pieces in the lower part, and in this way if we had put a correct value in the digital blueprint.



4

This time, it was time to start creating. At first we cut the wood sheets forming the different surfaces. Then we join the base and the different walls with a silicone gun, although it can also be done with white glue.

5

Later, the various cables were placed in their determined position and soldered together with the electronic elements. As they were a large number, different photos were taken to know how to connect these to the arduino. Some of them, such as the LEDs or the photoreistor, had to have a resistance between the element and the Arduino board, so these intermediate pieces were also soldered.

6

Then, the different cables were connected in their respective holes in the breadboard and in the respective pins in the Arduino uno controller board.



7

Finally, to define the final product, the coffin was painted with three layers of paint on the outside and the inside base.

In order to decorate and finalize the details, toy spiders and spider webs were hooked with "superglue".

To conclude, the coffin was painted with different shades of color for the last final details.