

Image digitalization

The first step of the design process is complete. It's worth mentioning that at this stage there isn't a single straight line in the image, which makes digitalization very challenging. Using geometric shapes, I can find the most perfect possible trace, which involves finding the center of each curve used in the sketch. This can take a while depending on the skill of the designer. I use two tools: the **Ellipse** tool and the **Smart fill** tool.

The **Smart fill** tool allows you to create objects from the intersection of two lines (Figure 10). It doesn't matter how complex the lines are; this tool is very useful for creating shapes from the filled areas. As a visual guide, I can use different outline colors for each object that

I am digitalizing, so that I have better control. I start by creating intersecting circles using the **Ellipse** tool. Whenever I have a fully defined segment, I fill it using the **Smart fill** tool, and then I combine all segments into a single curve object (Figure 11 and Figure 12). This process is not difficult but it requires some patience.

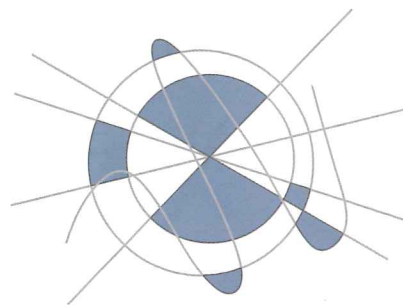


Figure 10: The blue objects are created from the space between the intersecting lines.



Figure 11: Geometric details from the digitalized sketch. The **Ellipse** tool is used to create intersecting circles, and the **Smart fill** tool is used to fill the overlapping areas and convert them to objects.



Figure 12: The jaguar head is gradually defined.



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the complete sketch



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Figure 13: Hand-drawn sketch and digital drawing

The digitalized drawing has some minor differences from the hand-drawn sketch, but the traces look better defined — clearly outlined eyes, rounded ears, longer teeth and tongue, thicker outlines (Figure 13).

Using the jaguar's natural spots as a guide, I identify a pattern with six sides, which can be naturally incorporated into the hexagons of the soccer ball (Figure 14). Using the **Contour** tool (**Ctrl + F9**), I add two inside contours to each hexagon. First, I create a one-step contour (cyan) and separate the objects of the contour group (**Ctrl + K**). Then, I select the cyan object and apply the second one-step contour (magenta). Next, I separate the objects of the second contour group. I delete the middle step by selecting the original hexagon and the cyan object and clicking the **Back minus front** button on the property bar. I remove the colors, and I have the final result.

When I start incorporating the hexagons into the head, I run into a problem: the hexagons

overlap with the eyes and mouth of the jaguar (Figure 15). However, I don't need to use all hexagons to achieve the soccer ball effect, because the 3D rendering produces a sphere effect on the jaguar's head, suggestive of a soccer ball. I delete a couple of hexagons and I am left with the three main jaguar spots.

I erase some parts of the hexagon objects to give them a more authentic look, similar to the jaguar's natural spots, as well as to achieve harmony with the other elements, such as the jaguar's eyes and ears.

Another technique that can help with the visual recognition of the shapes is to increase the spacing between the hexagons. Other adjustments include rounding of all corners and traces.

The next step is adding the team name to the logo (Figure 16). Finally, I add color and some shadows to make the image look less flat (Figure 17).