Unusual Snowflakes



Artist: Maria Chukalovskaya

Media: Acrylic paint on canvas with some glitter paint

Technique: Texture blending on canvas with a robotic ball controlled by a BCI

Dimensions: 30.5 cm by 23 cm

Artist Statement

I am Maria Chukalovskaya. I am 20 years old. I have been using augmentative and alternative communication (AAC) devices since a very early age, and I have to do things without using my hands. I like learning, painting, drawing, playing music, reading books, writing fiction stories, and going out with my service dogs.

My work **Unusual Snowflakes** was created with a new technology called brain computer interface (BCI) available through Holland Bloorview Kids Rehabilitation Institute's Clinical BCI Program. For more than a year, I participated in a BCI research study through the Bloorview

Research Institute's PRISM lab, that aimed to see how the BCI technology could be used for leisure activities such as playing games and controlling the environment for just having fun. This is very important for people who, like me, are limited in their abilities to use their hands and who cannot communicate even using a technology. In one of the sessions, I decided to try using the technology for painting and created this painting for my Grade 11 Visual Arts culminating assignment. I created my first painting, titled **Unusual Snowflakes**, to express my joy and happiness at being able to paint on my own. I love that with a BCI I can do it without hand-over-hand help. I used a small robotic ball that was connected to a BCI; and this was how my artwork called **Unusual Snowflakes** was born. I did not plan to do it, it was an unexpected and spontaneous decision, so the selection of colours was also spontaneous and intuitive, and so I chose my favorite colours, blue and light purple with the addition of white as well as of some red glitter acrylic paints. This colour selection created interesting shades and texture. The colour combination helped me to express my emotions of joy, happiness and excitement. The movement pattern of the robotic ball that was moving on the canvas following my emotions created a texture pattern resembling snowflakes and that is why the painting got its name. I was wearing a special hat with sensors that were able to pick up the difference in the electric potential that was created by changes in the level of my emotions. The ball was moving when the emotions were high; it stopped when I was calm. This was how I controlled the robotic ball, but guess what, the ball was moving really fast!