

## Creating Art Using EyeGaze

Mada Center

Art is the creation or implementation of human creative ability and creativity, usually in a visual form, such as painting or sculpture, creating works that are mainly admired for their beauty or emotional power. It can be a challenging task for people who can not create pieces of art with their hands or legs. Assistive Technology can provide a solution, art can be produced with your eyes by using EyeGaze technology.

A number of eye-tracking systems have been specifically designed to assist people with severe motor impairments. Systems include Quick Glance ([eyetechds.com](http://eyetechds.com)), VisionKey ([eyecan.ca](http://eyecan.ca)), and the LC Technologies Eyegaze Communication System ([eyegaze.com](http://eyegaze.com)). These systems offer computer control via eye-typing. Hundreds of people use these systems to communicate and function in life. The Eyegaze Communication System offers perhaps the most functionality, with software for uttering phrases via a speech synthesizer, making telephone calls, controlling lights and appliances, and turning pages in electronic books. Overall, few software applications have been specifically designed to be controlled with eye movements.

An EyeGaze technology device follows your eyes with amazing accuracy to see where you are looking on the screen. You can then select the item you are looking at by dwelling (staring at the screen for a length of time), blinking or clicking with a switch.

Many software programs allow people with severe mobility impairments to create art only with their eyes and to benefit from the same artistic and social activity tools as non-disabled people.

EyeGaze system works by continuously sending and receiving input from infra-red lights and cameras. The device captures the light reflections and converts the movement of the eyes to the mouse cursor. A one-time calibration will require just seconds to complete and ready to go.

Sarah Ezekiel is a physically disabled artist. Sarah uses her eyes as opposed to many who use their hands or feet to create art. Sara began to use eye gaze technology to help her continue to do all the stuff she had ever enjoyed doing before diagnosing her with motor neuron disease. She wasn't expecting an entirely new skill!

In 2012, Sarah used a graphics application program to create art using her EyeGaze system. From the UK Royal Art Schools to the Katara Art Center in Qatar with the help of Mada Center, she has displayed her art everywhere.

Megan Fry is another talented person who is a U.S. artist with a physical disability. She uses her eye movements to create various art. In her art, she demonstrates a wide range of emotions. Since she was 8 years old, she has been utilizing drawing

software independently. To perform the tasks, she uses an EyeGaze technology device. Using EyeGaze technology, she can drag and render shapes and colours to build her beautiful art. With such tools as Eye Trackers and some software, art became a possible area to dive into and unleash the creativity in any person despite their abilities.