

# Dexterity Check



The purpose of this project is to measure one's ability to make controlled hand movements by measuring how well they draw predefined shapes.

This tool will ask you to pick certain objects to draw, and you must draw them exactly as they appear. After you have drawn the objects you can upload them for analysis.

The model will either correctly or incorrectly classify your drawings using K-nearest neighbors classifier. A large number of incorrectly classified objects will indicate that your hand may not be able to make fine hand movements.

This tool has medical applications such as with movement disorders like tremor or stroke which can cause hemiparesis. Movement disorders are usually diagnosed with a neurological exam, MRI scan, or an electromyography. Some people with movement disorder have problems with coordination and walking.