

5.0 Frame

5.1 Version control

Version 1.0 - 2 February 2021 - first version

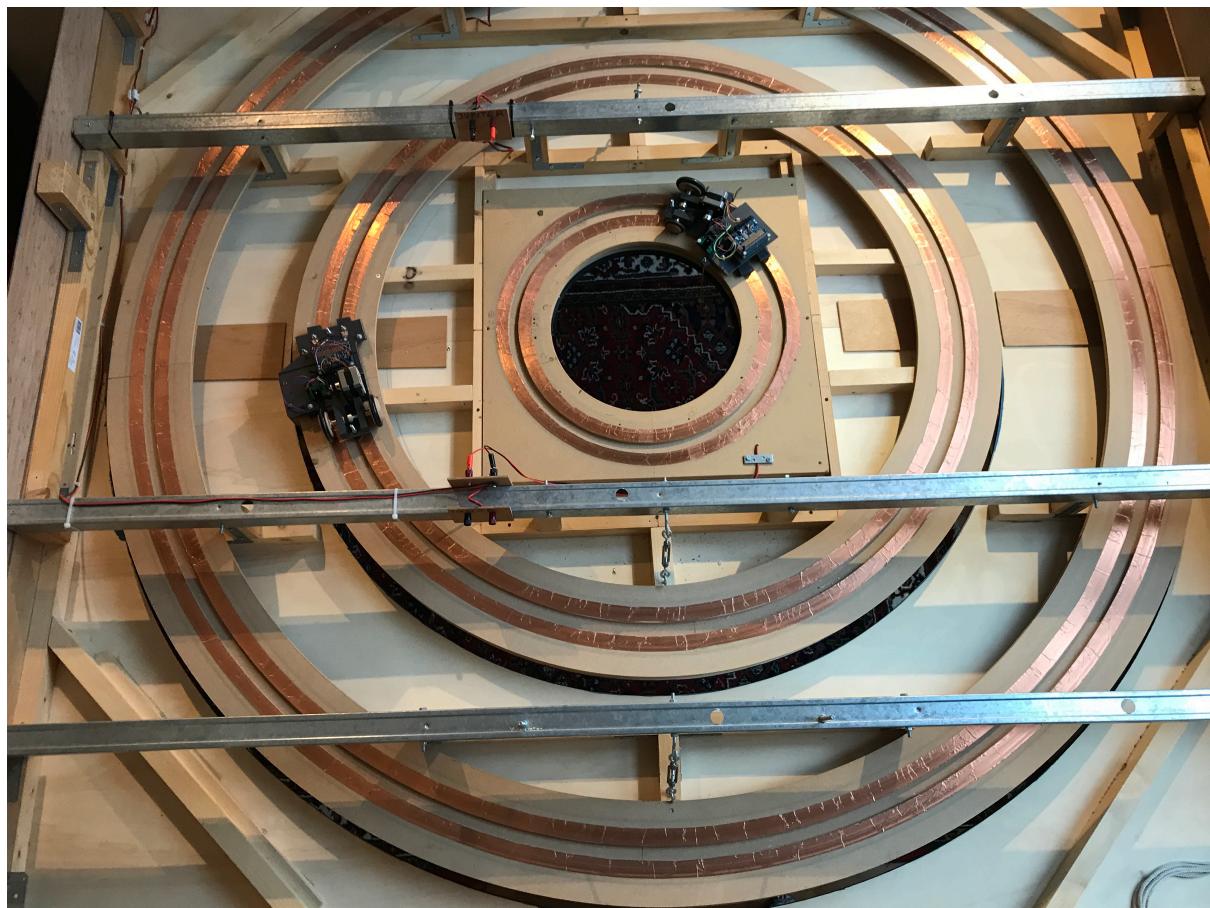
Version 1.1 - 9 February 2021 - typos fixed

5.2 Introduction

The frame is the actual DMO on which the outer planets drive and the inner planet system is suspended.

5.3 Frame

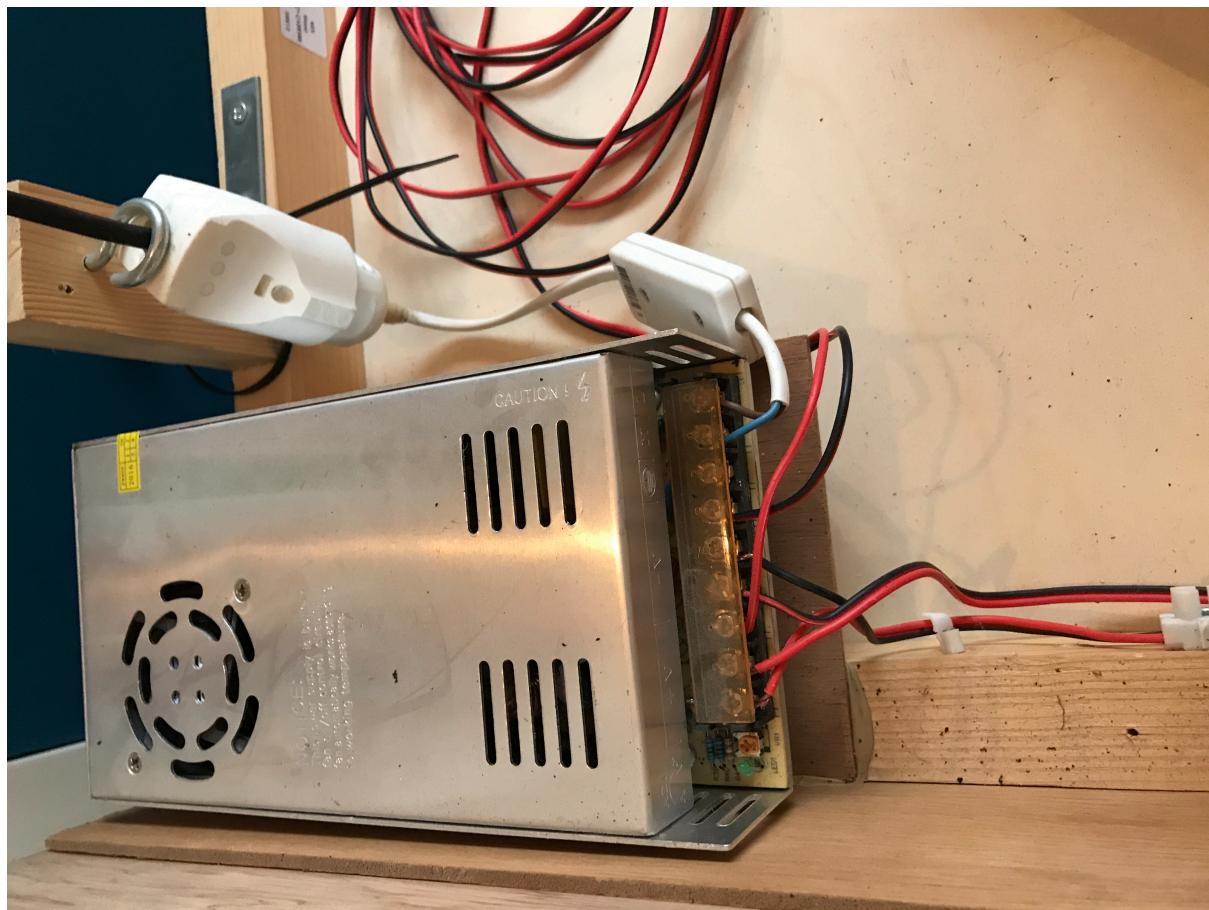
The frame is the basic construction. There is an inner-view and a front-view (the blue part which you can see when the DMO is mounted to the ceiling).



DM005.jpg frame overview

In the picture you can see the tracks of the outer planets. Out of sight is the power supply. The inner planets are removed. Measurements: 2,20 x 2,20 meter.

5.3.1 Power supply

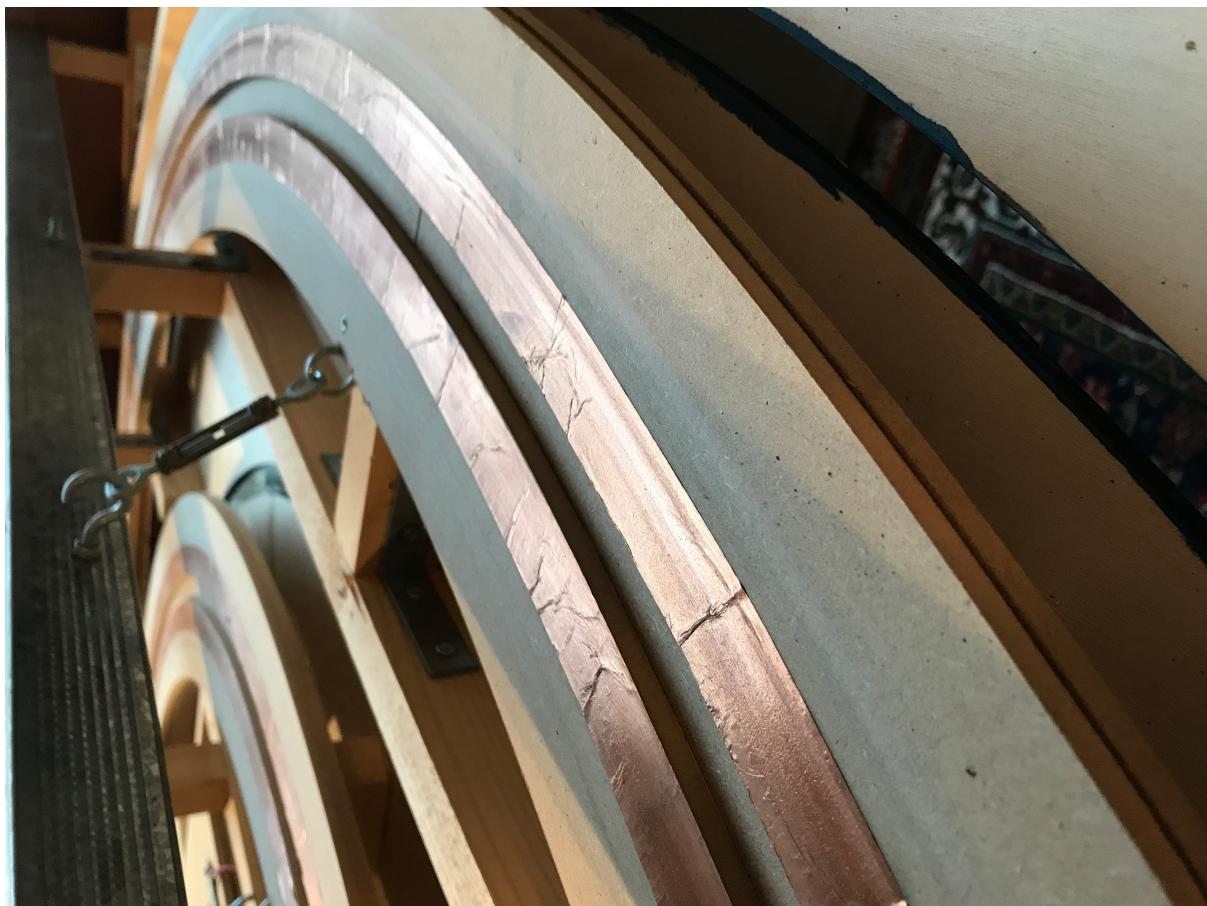


DM003.jpg power supply

The entire DMO runs on 12V DC. It consumes approximately 10 A when all steppers are running.

The input cable (220V AC) and is wound up when the DMO is lifted to the ceiling. Winding up is necessary because you would get excess length of the cable if you lift the DMO to the ceiling. The winding up mechanism is mounted in the top shelf of the library and comes from a vacuum cleaner.

5.3.2 Tracks outer planet



The outer planets run on a track. The track consists of a base and a left-rail and a right rail. Adhesive copper tape is stucked on both rails to provide electricity to the cars. The inner rail is the negative side.