Antenna arrays for communication with satellites in low Earth orbit are widely spread. The possibility of using beamforming techniques to track satellite trajectories makes them interesting objects of study. The need of a physical antenna array can be supressed by means of an emulator of the signals received by the array elements. These signals can be then used as inputs to other devices such as a data acquisition and processing system.

The goal of the present work is to develop a system that emulates the signals received by an antenna array. A model of these signals for a linear array was conceived and a protoype that generates them was developped with the possibility to extend its capabilities to a planar array.