NextMotion Revolution is a machine that enables to record pictures and videos of a person by rotating 360 degrees around them. The person is in the middle of the machine. The machine rests on a fixed ring base, placed on the ground, and a mobile ring part that rotates by driving an arm/holder for a smartphone.

This movement is performed by a stepper motor controlled by an electronic board. The electronic board will control the motor according to the commands received and the position of the machine. The control is of square PWM type with a variable frequency between 30 and 300Hz.

The position is known thanks to slots realized in the base in front of which pass infrared rays.

The electronic board receives its commands from a smartphone equipped with Bluetooth 5.1 on the 2.4GHz frequency band. The exchanged data allows to send movement commands and to receive status on the position of the machine, its operating mode, its battery etc.

The data exchanged complies with the Bluetooth 5.1 standard and the usual public descriptors are provided (name, manufacturer, version number, battery level). A specific profile exists for the control/command part of the machine.

The Bluetooth link is kept active by sending frames every 20-40ms maximum. If this link is lost (4 seconds without a received frame) or the emergency button is pressed, the machine stops immediately.
Without an active link to a smartphone, the machine is in standby mode. It signals itself (advertising) indefinitely every 20ms.