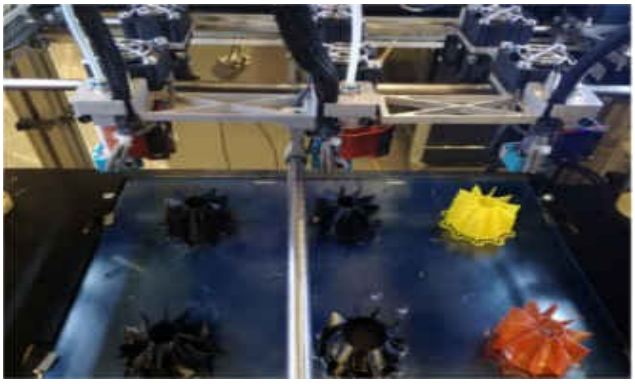
Sixer using FFF (Fused Filament Fabrication) printing technology. It is designed for company who need a 3D printer for small series production to maximize printing time and costs compared to currently commercially available 3D printers .

The structure consists of 45x45 aluminum profiles with a frame in powder-coated sheet metal and lexan 3-5 mm. The trolley with integrated self-locking wheels has a front compartment for the objects and a rear compartment for reels.

It is equipped with a heated bed composed with six E3D v6 extruders arranged in a 3x2 matrix and a heated printing plate divided into six areas each with construction dimensions of 130x140x380 mm.



The extruders reach the extrusion temperature of 270 ° C.

The brass nozzles with a standard diameter of 0.40 mm are interchangeable with the simple aid of a 7 mm wrench.

This system allows to change the diameter of the extruder to obtain different printing resolutions as well as allowing the replacement of the nozzle material if you have to print some types of material, such as carbon fiber.

Nozzles available: 0,25 mm- 0,30 mm-0,35 mm- 0,5 mm-0,60 mm-0,80 mm

It is also equipped with a tempered chamber up to 50°C to allow better adhesion of the print, especially when using technical materials or with high retractions.

The heated bed reaches a temperature of 120 ° C.

Sixer allows the users to menage a single .STL file and two printing temperatures to obtain simultaneously six or more identical models.ttenere in contemporanea sei modelli uguali in due materiali differenti.

The Cartesian X, Y movement allows to reach a high printing speed with a high accuracy of layer thickness.
Sixer has a Z-axis layer resolution of 0.02 mm up to 0.3 mm (20 - 300 microns) and an average printing speed 10 - 80 mm / s.
The movement of the XY axis takes place through rectified 12 mm INA cemented bars and self-lubricated bars 2X10 each, while the Z axis is moved by means of IGUS 10x2 trapezoidal bars and 12 mm INA cemented linear bars.
All the components of the linear movement are in ERGAL 7075 T651.

Sixer uses engines NEMA 23 1/32 step.

Sixer does not have proprietary filaments, supports the filaments on the market with a diameter of 1.75 mm including:

- PLA
- ABS
- ABS V0 autoestinguente
- ASA X
- PC/ABS | PC/ABS V0
- Alfa+
- Ceramo
- Ethil lay
- ABS SPECIALE
- PVA (water soluble support)
- HIPS
- PLA vulcano
- TPU 45-55 D - 90A
- Laywood e Laywoo-D3
- PETG
- Nylon
- HIPS
- T-glase
- Carbon fiber
- Iglidur

The 3D printer is equipped with a control panel with an integrated 128x64 LCD graphic screen that allows to manage or modify the various parameters even during printing such as:

- Print speed and temperature
- Cooling fan speed
- Flow
- Automatic filament change
- Management of the SD card
- Axis movement
- Pause / stop printing and extrusion
- Manual bad shape

The 3D printer can be used via USB connectivity or via SD card. There is the possibility to control with the supplied tablet, remotely the printer using the webcam with dedicated IP address. An application for controlling and managing print parameters is installed inside.

Sixer is compatible with any 3D material and software on the market.
The format of the files supported by the printer is .STL to .gcode.

For the safety of the user and of the prints the devices were installed:

- **Emergency stop** on the main panel stops the printer in an emergency .
- **Filament sensor,** detects the end of the filament and makes the printer run automatically: pause - move extruders in the car home to allow the user to change the thread - resume printing from the exact point where it was suspended
- **Change filament**

A starter kit is supplied with Sixer, including:

- User and maintenance manual
- SD card
- USB cable
- Cutter for finishing
- Harmonic steel wire for cleaning the nozzles
- Scraper
- safety devices
- Grommets for filament cleaning
- n.6 spools of filaments

TECH DATA

Tecnology: FFF-Fused Filament Fabrication

Build volume: six areas 130 x 140 x 380 mm each one

Resolution layer: 0.02 mm –0, 3 mm (20-300 micron)

Filament diameter: 1,75 mm

Nozzle: Standard 0,40 mm , interchangeable. Brass

Extruders: 6

Connectivity: USB – SD Card - Tablet

CONTROL & FIRMWARE

Megatronics 3.1

Stepper Drivers DRV8825

Marlin Firmware

DiMENSIONS AND WEIGHT

Dimensions: 650 x 600 x 1500 mm

Approx. weight: 50 Kg

Approx. Shipping weight: 60 Kg

Shipping dimensions: 800 x 800 x 1100 cm

TEMPERATURE

Extrusion temp.: 270°C

Operating temp.: 15° -32 °C

Heated bed: fino a 120°C

Temperate chamber: 50°C

MECHANICS

Build plate: temperated glass 4 mm and heated plate

XY Axes: XY static support: Cemented linear bars 12 mm INA
XY support dinamic: Self-lubricating linear bars 2x10 mm cad.

Z Axis: N° 4 Cemented linear bars 12 mm INA, n°4 trapezoidal bars 10x2 IGUS.

Stepper: NEMA 23 stepper motors.

Printer speed: 10- 80 mm/s

Transfer speed: 10-150 mm/s

FEATURES

Key ignition
Emergency stop button
Wire end sensor
Filament changing system
OPERATING REQUIREMENTS

Power: 240-400 V AC 50 Hz 400 Watt

SOFTWARE

Open source

OPERATING SYSTEMS

Windows, Mac e Linux