

【ABSTRACT】

The disclosure relates to a 3D printer for clothing, the 3D printer including:
a needle module in which a plurality of needle units are arranged side by side, the
needle unit including a needle hook formed in an end portion and a plurality of
5 protrusions formed in a middle region; a first actuation module including a carriage
for a flat-knitting machine, a rear of which is formed with a track to be linked with one
of the plurality of protrusions, and provided to be movable left and right; a second
actuation module including a connector formed with a screw thread for meshing with
another one of the plurality of protrusions, and an actuator for actuating the
10 connector to move, and provided to be movable left and right; a first movement unit
allowing the first actuation module to move up and down to be in contact with the
needle module; and a second movement unit allowing the connector of the second
actuation module to move up and down with respect to the needle module, wherein,
when the protrusion of the needle unit is linked to the track as the first movement unit
15 moves the first actuation module toward the needle module, the needle unit moves
forward or backward by the connection between the track of the carriage and the
protrusion as the carriage moves left and right, and wherein, when the second
movement unit moves the connector of the second actuation module toward the
needle module, the needle unit meshing with the screw thread moves forward or
20 backward as the actuator actuates the connector to rotate while the screw thread is
connecting with the protrusion of the needle unit. With this, there is provided a
clothing-manufacturing 3D printer with a new actuation mechanism.

Fig. 1