
mcr

Makelangelo 3.2 wall setup

Getting your Makelangelo 3.2 mechanically ready to begin drawing.

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INTRODUCTION

This guide will show you the steps to get your Makelangelo 3.2 robot ready to begin a drawing. It does not include the software or firmware readiness, which is covered in other documents.

Step 1 — Window setup



- Insert the suction cups: 3 in each triangular corner, and 2 in each of the control boards.
- wet the suction cups before pressing the components to the top of the glass. Try to get the motors at the same height and as level as possible. The electronics must go between the motors.
- arrange the cables so that no cables hang down in the drawing area of the machine. The drawing area is the area under and between the two motors. Some droop at the top is OK.
- Proceed to Counterweight & belt setup

Step 2 — Wall setup



- Option 1, screw the components to the wall.
- Option 2, use 3M adhesive hooks.
- Try to get the motors at the same height and as level as possible. The electronics must go between the motors.
- Proceed to Counterweight & belt setup

Step 3 — Portable board setup



- Option 1: Using the extra triangle and the m3 screws, clamp the corner mounts to the board. *We do not have a satisfactory way to mount the electronics yet.*
- Option 2: Screw the components to the board.
- It is easiest if the center of each motor shaft is right at each corner of the board.
- Make sure your board is off the floor to leave room for the counterweights!
- Proceed to Counterweight & belt setup

Step 4 — Counterweight & belt setup



- Attach a counterweight to each belt. We are fond of using recycled plastic water bottles to reduce waste and environmental damage.
- arrange one belt over each pulley. the belt must be inside the mounting screws for the motor. The counterweight should hang free with nothing that could catch it and interfere with the drawing.
- Confirm that the weights hang on the outside while the looped ends are on the inside.
- Attach the looped ends to the long screws at the top of the pen holder. Make sure these screws are tightly fastened at all times.

Step 5 — Pen Holder setup



- Attach the cable from the pen holder to the 3 wire cable coming from the control box. Match the white wire of the servo to the white wire of the 3 wire cable.
- Insert a pen in the collet and tighten the screw. The pen tip should stick out past the other end of the collet, but not more than the servo finger can lift. This way it can draw and also lift off the paper when it needs to.