GENESIS'25 – MAZE-TERMIND

PROTOYPE ASSEBMBLY TUTORIAL

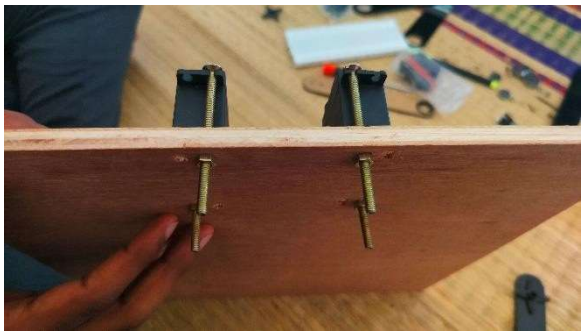
Mechanical Assembly:

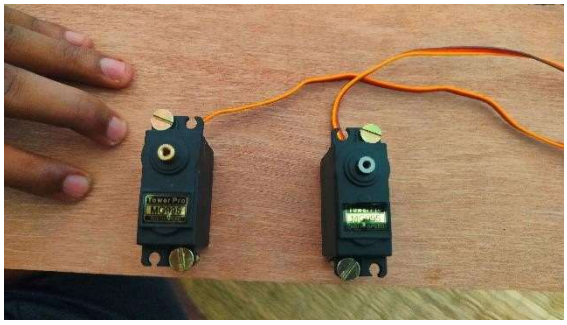
- Stick the servo horn to the two smaller links as shown.

Servo horn

Smaller link attached with horn

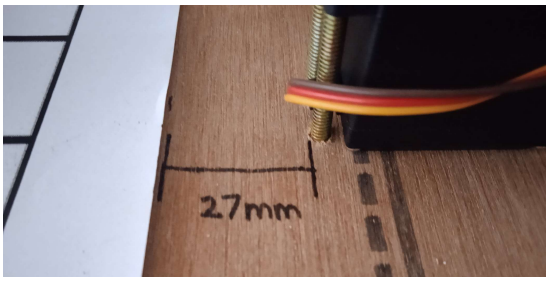
- Attach the MG995 servos to the plywood in the holes provided as shown. Use **8** nuts and bolts to attach each servo.





Servos properly attached to plywood.

- Align the left edge of the maze to the left edge of the plywood. Place the maze at a distance of 27 mm as shown in the figure.



- Attach the larger link to the shorter link as shown using nuts and bolts.

Top view

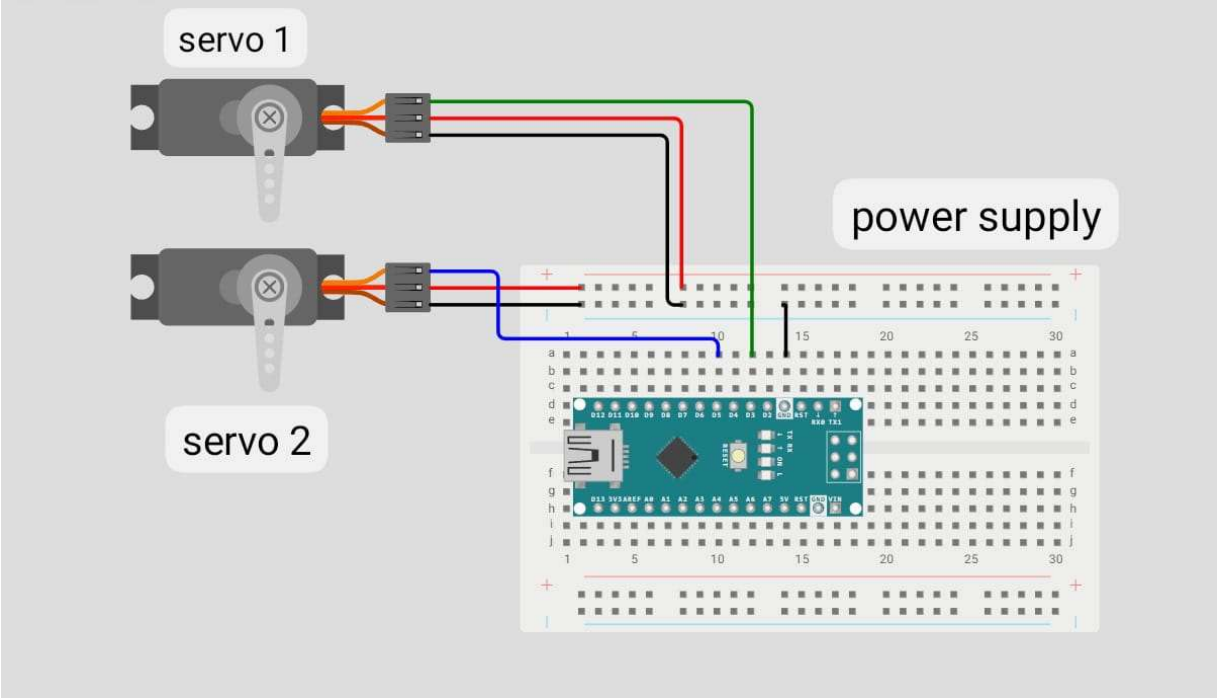
Bottom view

- Attached links should look this way. (For reference, the side where servo horn is placed would be downwards).

Circuit Assembly:

- Connect jumpers to barrel jack as shown (Notice the positive and negative power terminals)

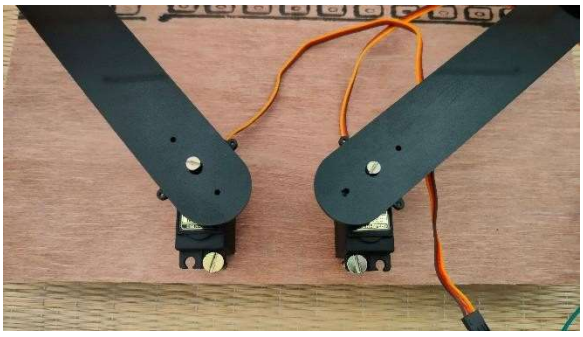
- Assemble the circuit as shown.

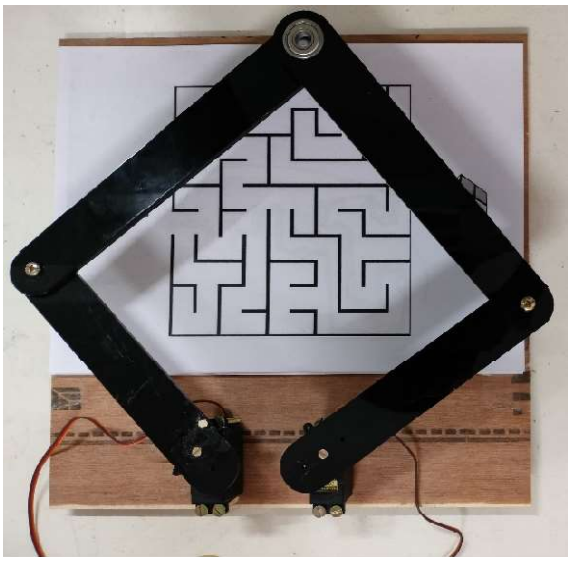


Circuit Diagram

- Calibrate the servos such that the left servo (S1) (pin 3) is at 0 degrees and right servo (S2) (pin 5) is at 180 degrees using “servo_initialize.ino” file.

- Attach both arms to the servos through servo head using M3 bolts. Place the sketch inside the bearing, wound the sketch with insulation tape to increase thickness in case the sketch doesn’t fit inside the bearing. Connect Arduino to laptop, upload the given “pyserialtest_nano.ino” file, and run the provided python script in laptop.





- Attach the sketch pen in the hole the lies in between two longer links , wrap cellotape around the sketch pen such that it fits properly.