

Cornerstone Electronics Technology and Robotics Week 27 Sandwich Body Construction

- Administration:
 - Prayer
 - Turn in quiz
- Wire Sandwich switch per page 410 in Robot Building for Beginners.
- Robot Building for Beginners, **Chapter 24, Body Building**
 - Position breadboard on the bottom of the container and against the front. Mark four screw holes.
 - Drill 7/64" holes for circuit board mounting. Assumes that you use #4 screws to mount circuit board.
 - Layout the center points for the motor mounting on grid paper, see page 450 in the Cook book. Transfer points to removable labels and draw 7.6 mm circle using the circle template. Apply label to each side of the container, 4.5 cm from the rear of the container. Measure up 4 mm from lip to bottom of 7.6 cm circle. See book for positioning. Poke holes in container using scribe.
 - Drill 7/64" holes in all centers of motor mount layout.
 - Using a grinding stone on the Dremel, grind out the motor shaft holes on each side of the container. Check motor alignment and screw holes. The raised section of the motor should stick out of the container.
 - Cut off the lid of the M & M candy tube. Measure 10.8 cm and cut off the bottom of the tube. Drill approximately a 1 cm hole at the mid-point of the tube,
 - Sand the ends of the tube to deburr.
 - Wrap approximately 120 cm of masking tape around one of the motors and approximately 60 cm of tape around the other motor. Test fit into M & M tube.
 - Pilot 7/64" hole for both switches and the battery holder. Grind out the switch holes to proper size.
 - Install power switch, line-following switch, and battery holder.
 - Install motors.
 - Install circuit board using #4-40 x 1 1/2" s/s screws and 1" nylon spacers.
 - Attach switches, motors, and battery to the circuit board using the Molex connectors.
 - Attach and tighten the circuit board to the body. The board may have to be drilled out if #6 screws are used for mounting.
 - Drill 9/64" holes for tripots.
 - Cut elongated hole over photocells. Use razor knife.
 - Run Sandwich over dark of white line.