Test Bench Documentation

Tuning the PD attitude controller is difficult, and requires a lot of trial and error (at least the traditional way). To do this without repeatedly crashing the drone, we build a test bench that pins the drone in place but lets it rotate freely in roll, pitch, and yaw. It’s also meant to allow free movement in the z axis, but this component gets cocked, so the z-axis is effectively pinned. The drone should be screwed into the platform, and then the platform should be mounted to a table with at least 3 bar clamps. The rest of the operation should be fairly self-explanitory. Work with Pat McGuire if you need any spare parts or anything relating to this. He helped design and build it.