<span class="image main"><img src="images/project1sub.jpg" alt="" /></span>

                                <p>In 2024 summer, I led a team of three to design a <a href="https://youtu.be/BSsDkun4YXs?si=Trb1attmV9\_PKiL5" target="\_blank">Room Occupancy Monitor</a> with mechanical prevention. In this project, I designed the CAD models for the shell, mechanical arm, sensor protectors, and LED holder and manufactured them.<p>

                                </p>As one of the most crucial parts of our project, two IR Distance sensors were chosen due to their outstanding reaction time (refreshes every 50ms) for fast-passing objects. At the same time, to ensure the device is fully customizable, the KY-040 Rotary Encoder is used to adjust parameters like current occupancy and maximum occupancy. </p>

                                <span class="image main"><img src="images/project2.png" alt="" /></span>

                                <p>    Initial design for the mechanical actuation part of the room occupancy monitor. </p>

                                <p>