Date: September 4, 2024

Topic: the introduction of the project and what to start.

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Key points of meeting:

1. The cabinet and sink are intelligent furniture which can be controlled by central microcontroller. Both can move down or up by using motors. But they cannot measure the distance to satisfy some extra function, like moving down to specify height. This project aims to use caliper to measure the distance between the bottom of the cabinet and the table. So as the sink.
2. Some problems with the sink part. Because of the design of the smart sink, the distance that should be measured for sink is more than 15cm which is far more than a caliper can measure. So, a solution should be to figure out how to get the distance, like combine two calipers, etc.
3. Some problems with the smart cabinet part. The distance can be measured through the distance of electrically driven lever which is assembled on the cabinet to make it move. By calculating the proportion of the distance moved of lever and cabinet, it will realize the target.
4. The first thing to learn is 3D printing and 3D modeling. Fusion 360 is software that can be used to model.
5. The ESP home and home assistant also need to be familiar with. ESP home can help to write script the code easily