

Developer Guide - Mechanical Design

Please refer to the structure and peripheral ports of a sample module to design your own accessory. For more details, you can refer to the mechanical design file in STP format.

1. Structure

A sample module design is shown in Figure A, and it consists of 3 main components (see Figure B).

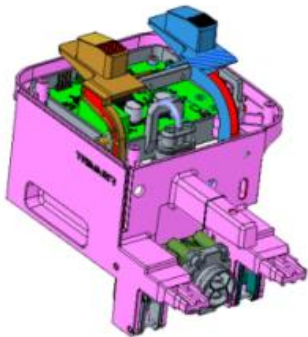


Figure A

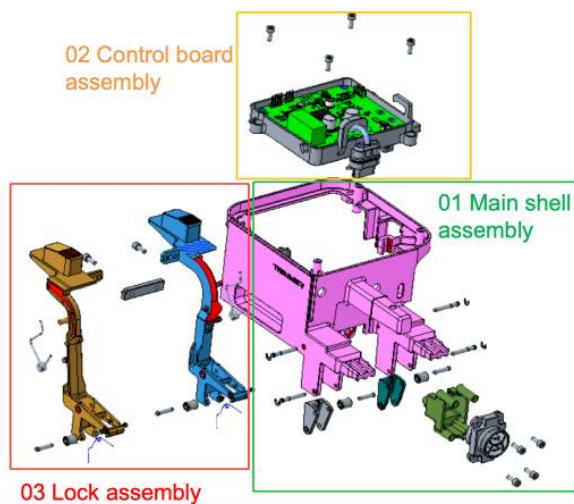


Figure B

- **01 Main Shell Assembly**
 - The outer casing of the accessory module, directly mounted to the mower

- You can customize the size, shape, and layout to fit specific use cases
- **02 Control Board Assembly**
 - Contains the custom PCB and components
 - Shown as a placeholder. You can design your own PCB and internal structures as needed.
- **03 Lock Assembly**
 - Mechanically secures the control board inside the main shell
 - You can redesign it based on size and security requirements

2. Recommended Materials

Since the accessory is mounted externally, it may be subject to physical impact when the mower is working. For durability, we recommend using **PA6+GF30** (30% glass-fiber-reinforced nylon) for the outer shell.

For the connector (see Figure C), a rubber gasket should be added to improve waterproof sealing (see Figure D).



Figure C



Figure D

3. Safety Reminder

Important: If the mower is used solely to transport accessories (without mowing), we strongly recommend **removing the blades** from the mower to prevent injury or damage.