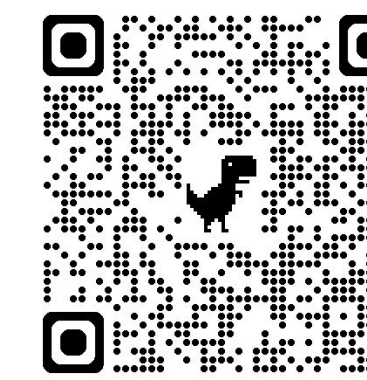
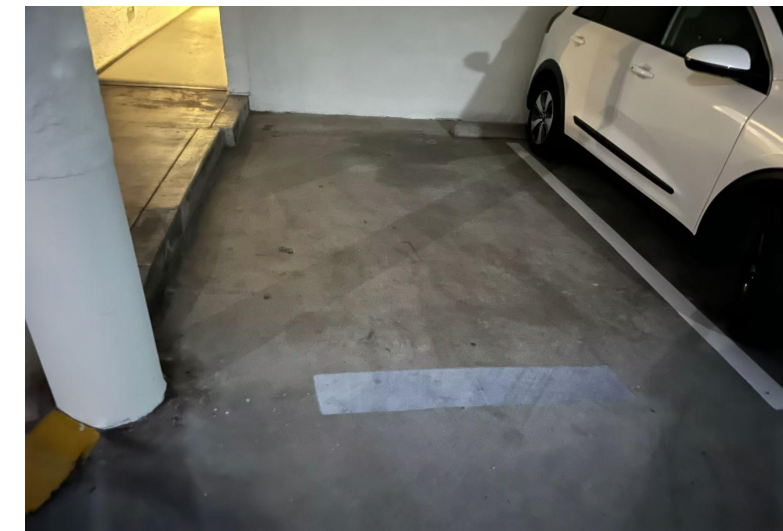


Parking Assistant



Problem

Drivers often encounter parking spots that are too compact to comfortably park into.

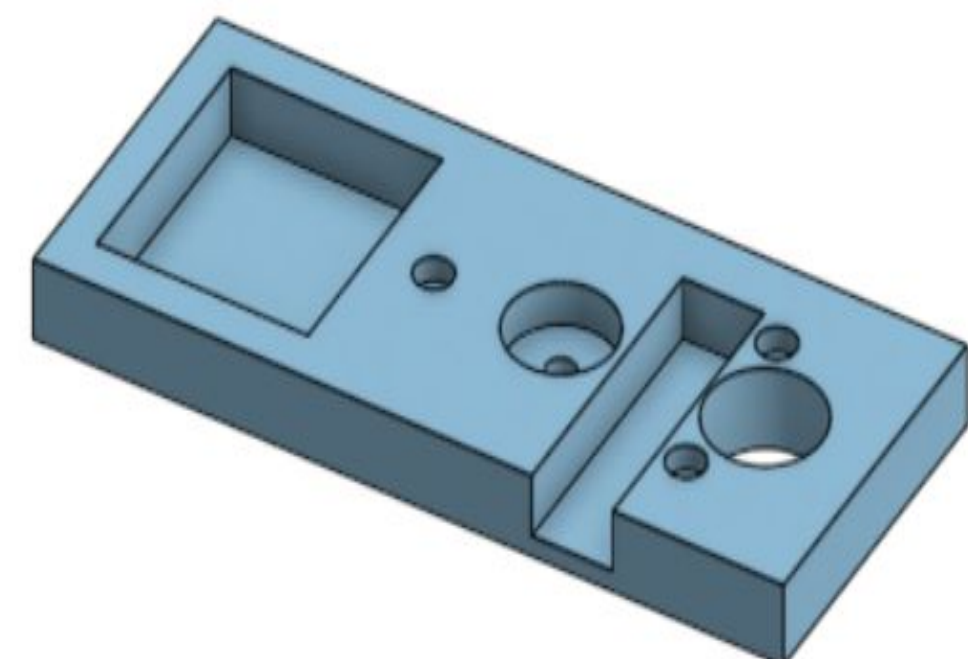


This parking space is too narrow...

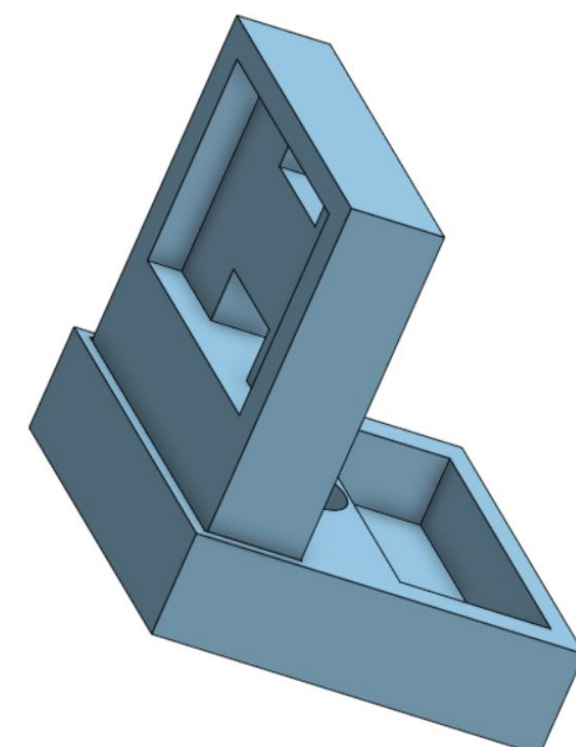
Testable Hypothesis: The lidar sensor correctly measures distances of nearby obstacles, display dots on the screen representing obstacles so the driver knows there are obstacles too close to the car.

Design:

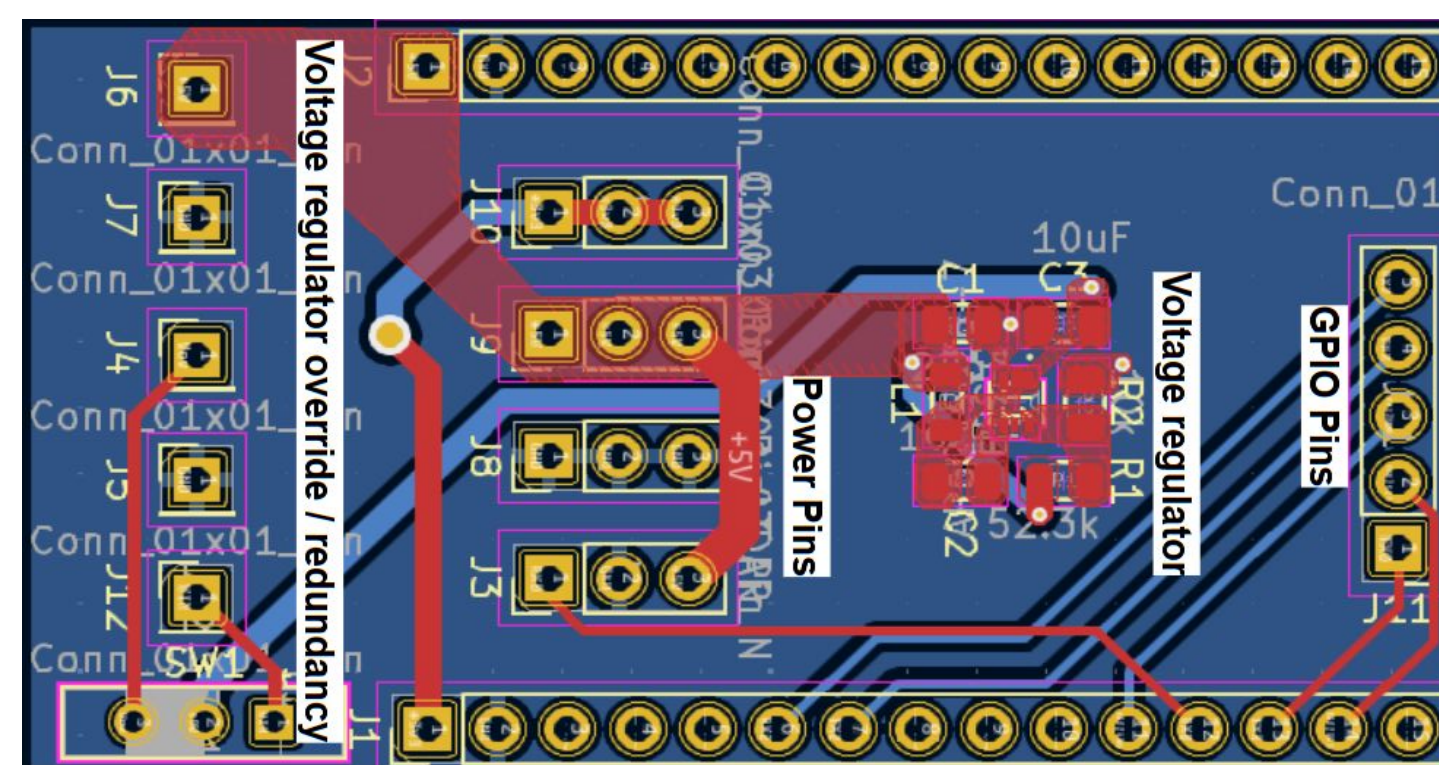
LiDAR Mount



Screen Mount



PCB Bulk Converter Layout

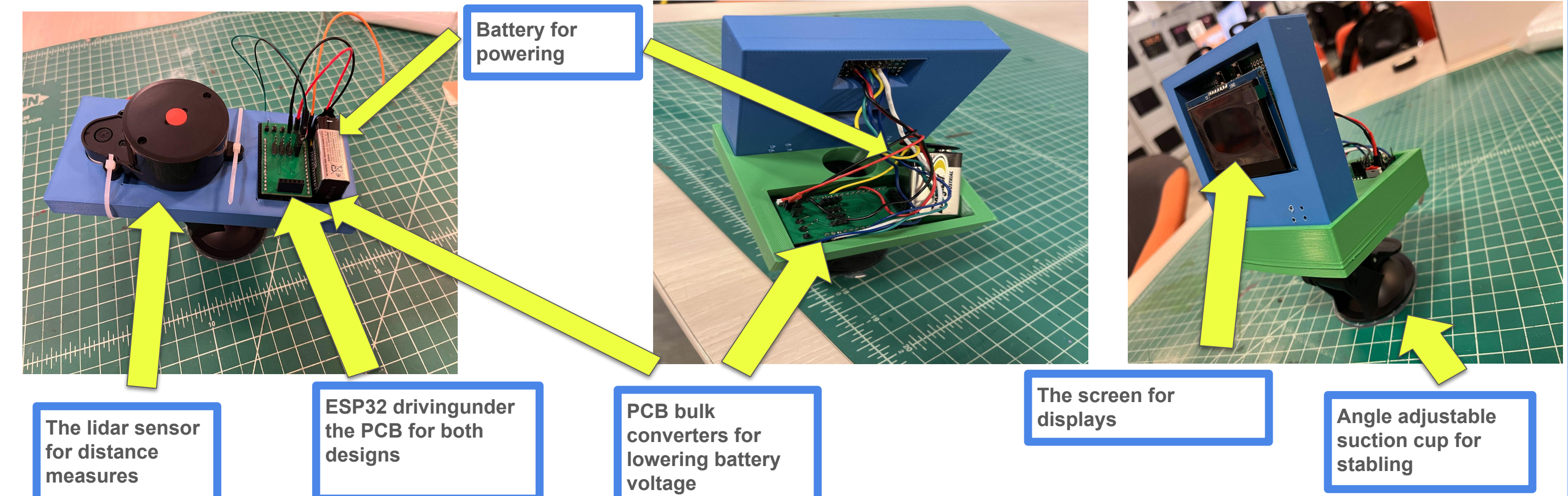


Wiring Diagram

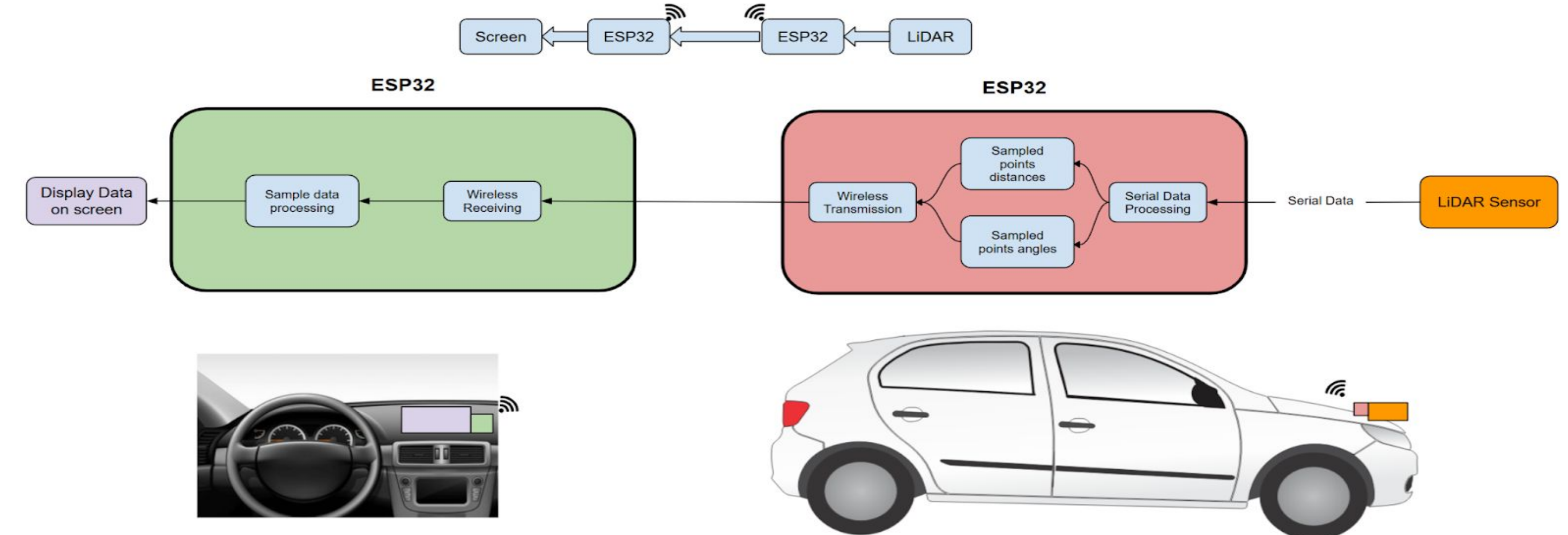


Prototype

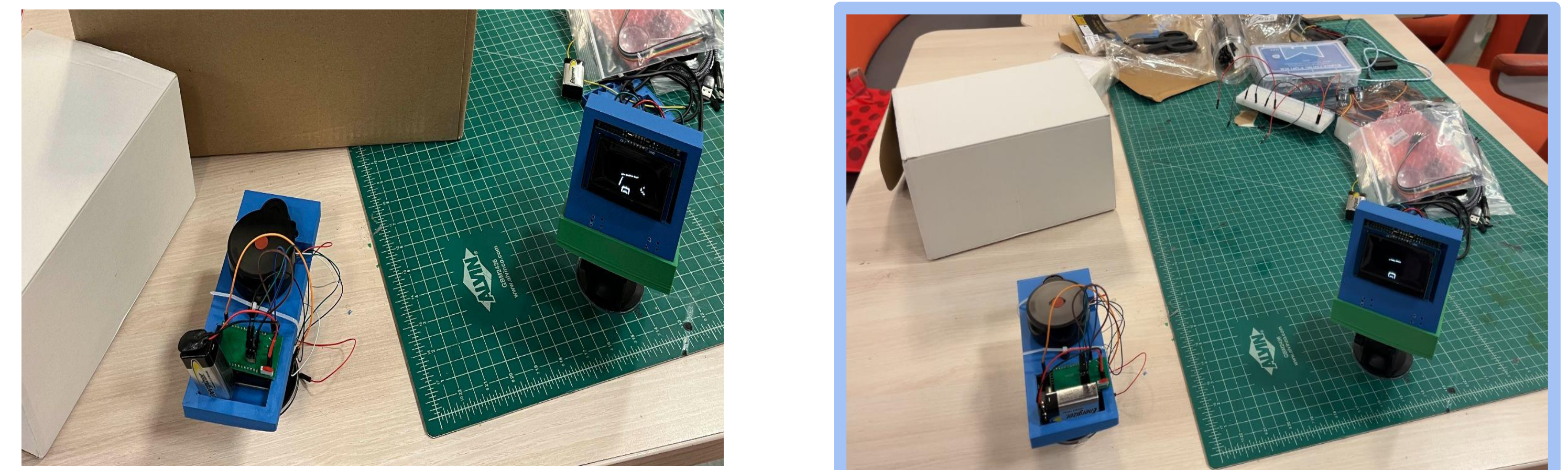
Our design consists of two parts, the screen part goes inside the car and show the driver data



Flowchart



Results



The lidar accurately measures distances of obstacles around and displays on the screen