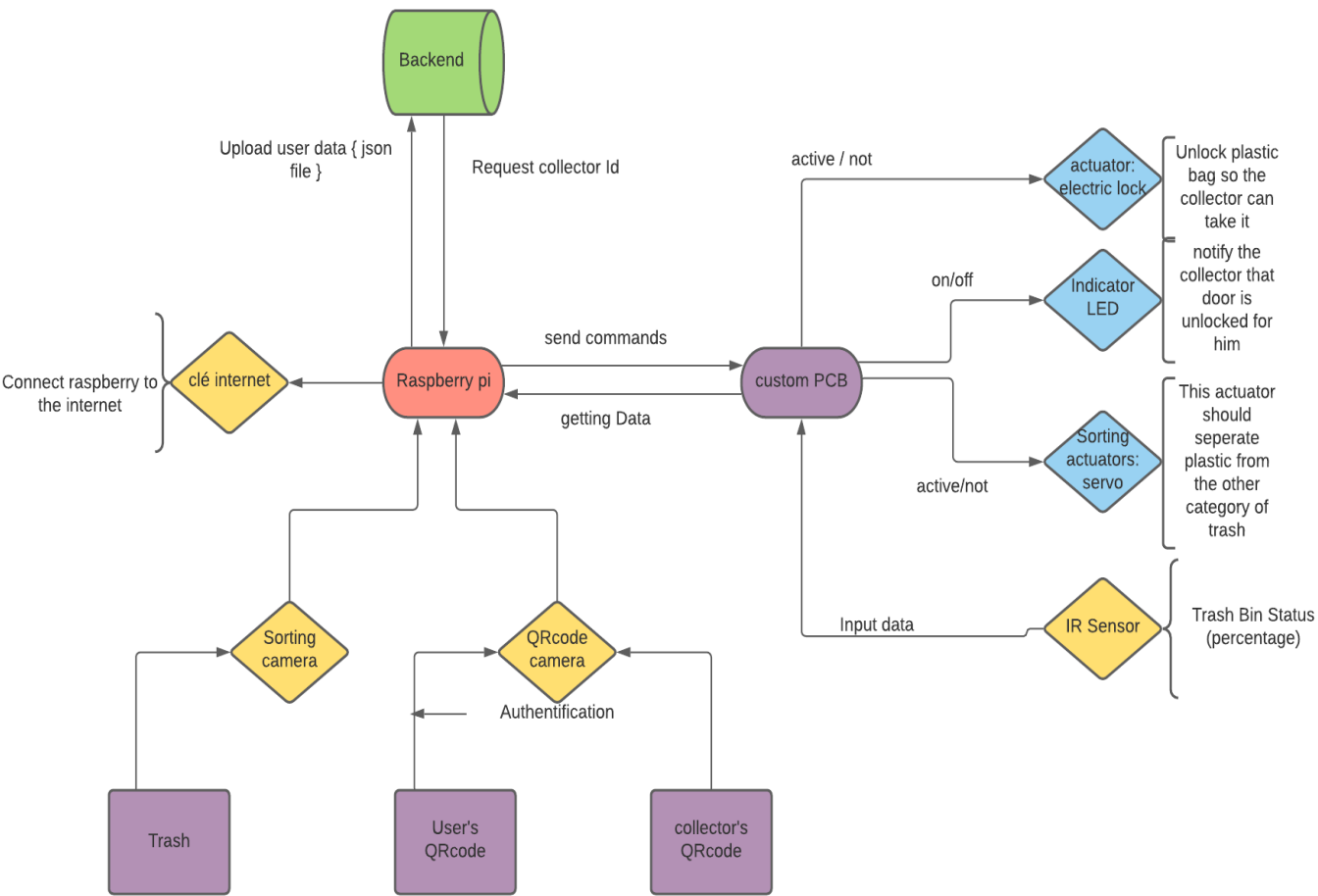
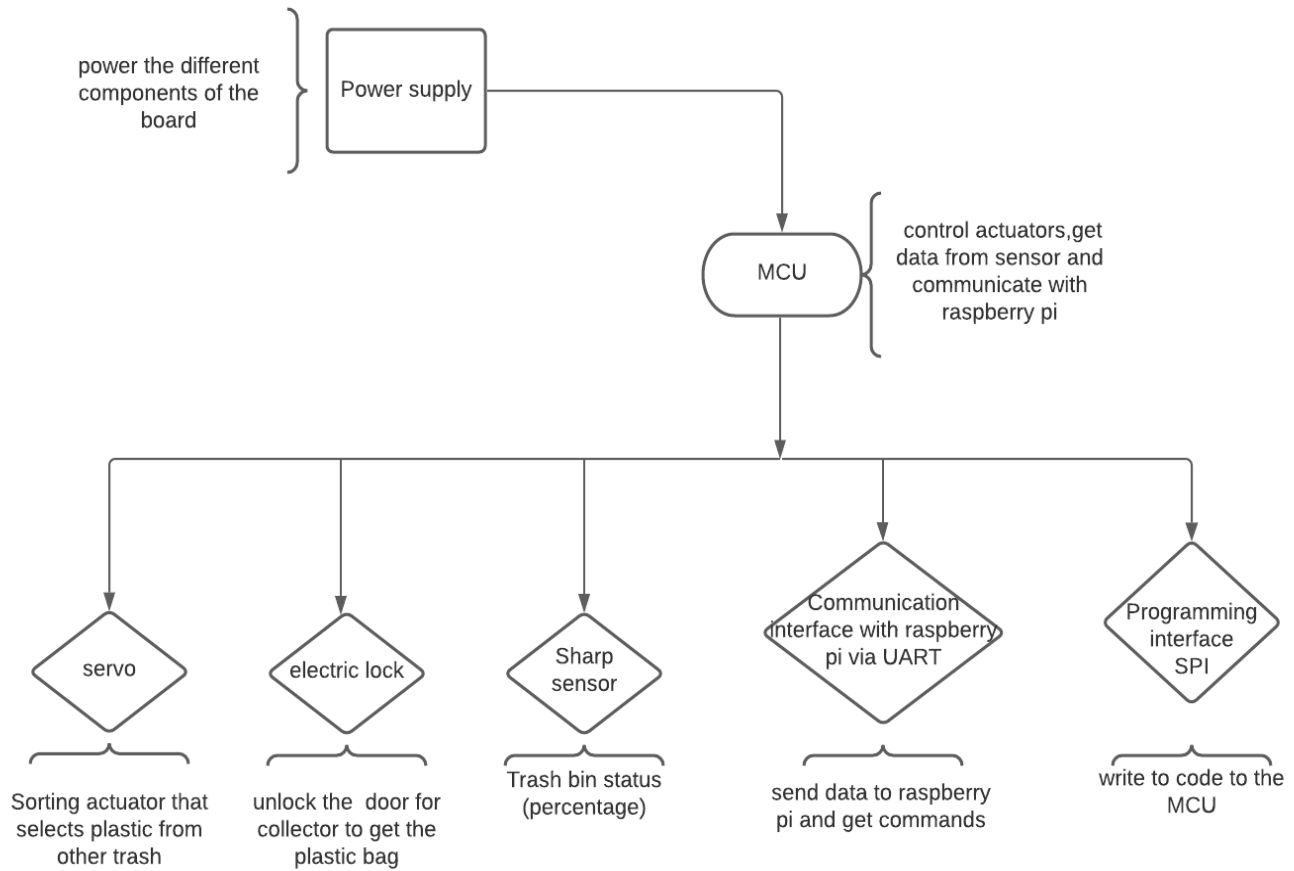


Diagram block of the trash bin system :



Custom PCB Diagram :



Description :

Component	Role
Raspberry pi 4	Board dedicated for data processing, and communicating via UART Protocol to the custom PCB to get data from our sensors and controlling actuators.
Database MongoDB	Upload user data and request id's (json file)
Clé internet tp-link	Internet provider to our board
IR sensor (sharp)	We're placing this sensor so we can get the percentage of the plastic in the trash can.
Servo motor	This actuator will move the plastic to a can and other trash to another can
Electric lock	This actuator will lock the plastic door so only the collector can get the access
Indicator LED	If led is red, the plastic door is locked If le dis green, the plastic door is unlocked
Sorting camera	This camera will get the input (the trash)
QRcode Camera	This camera will get the QRcode of both cases a collector or a user and transfer it to raspberry pi