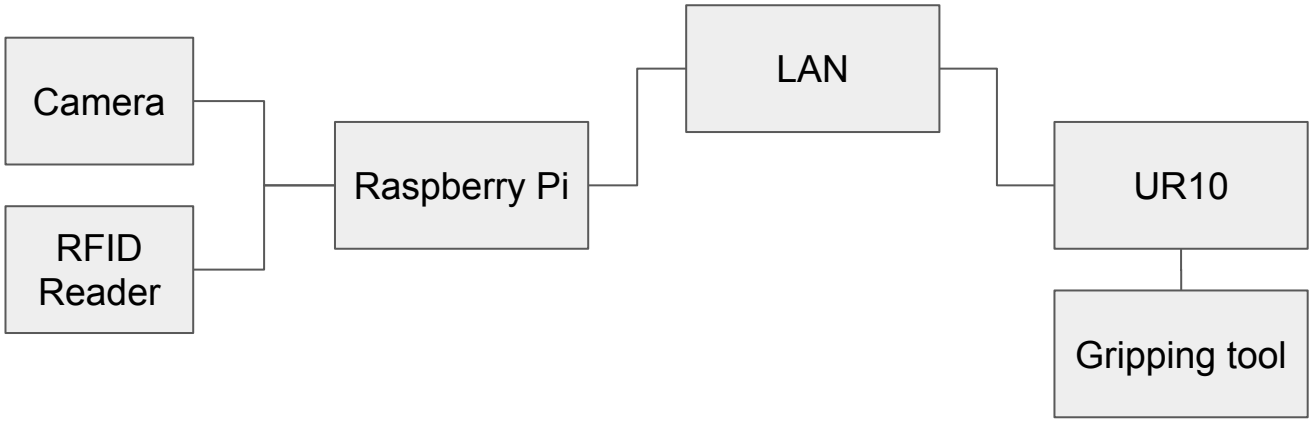
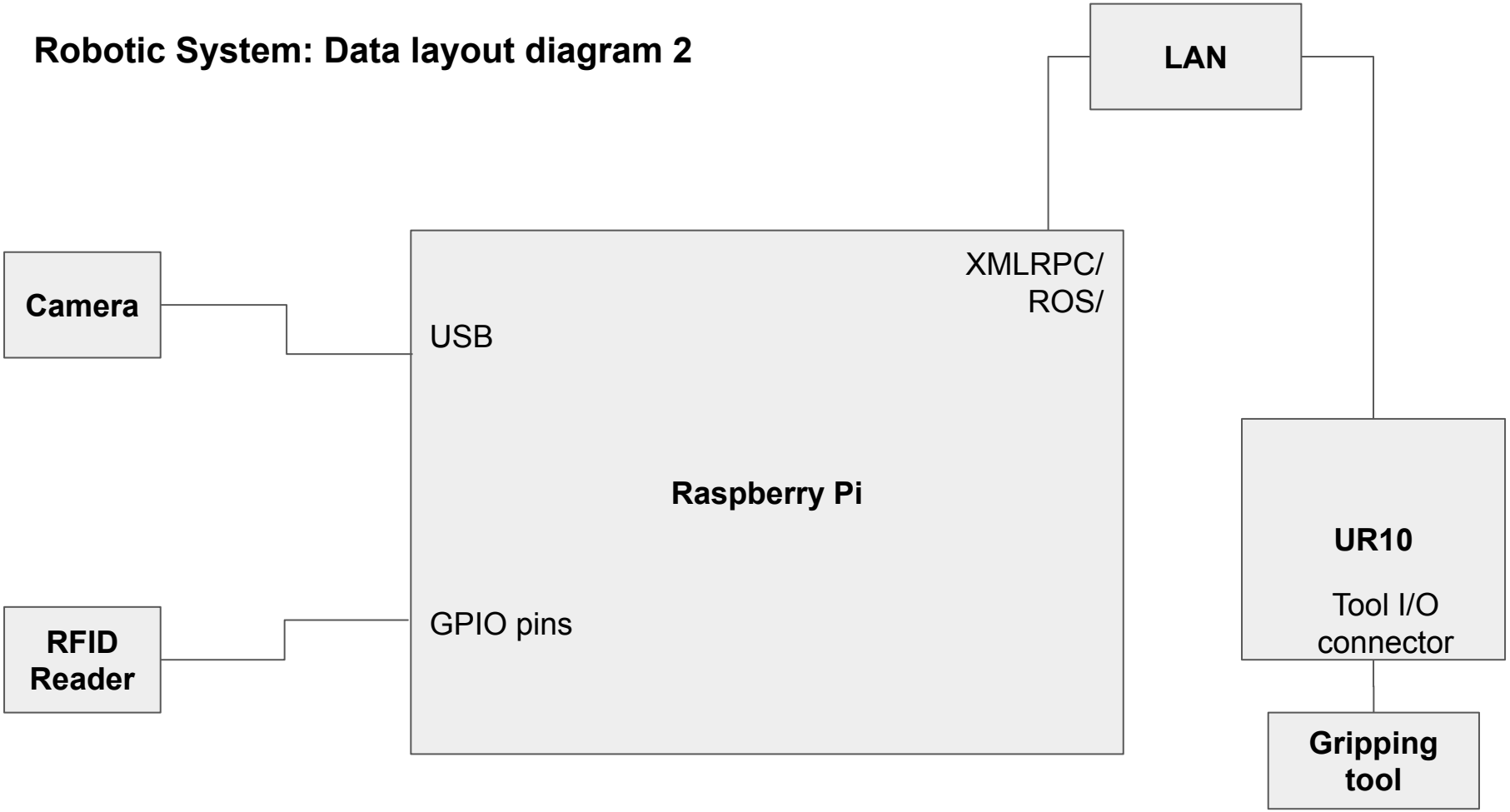
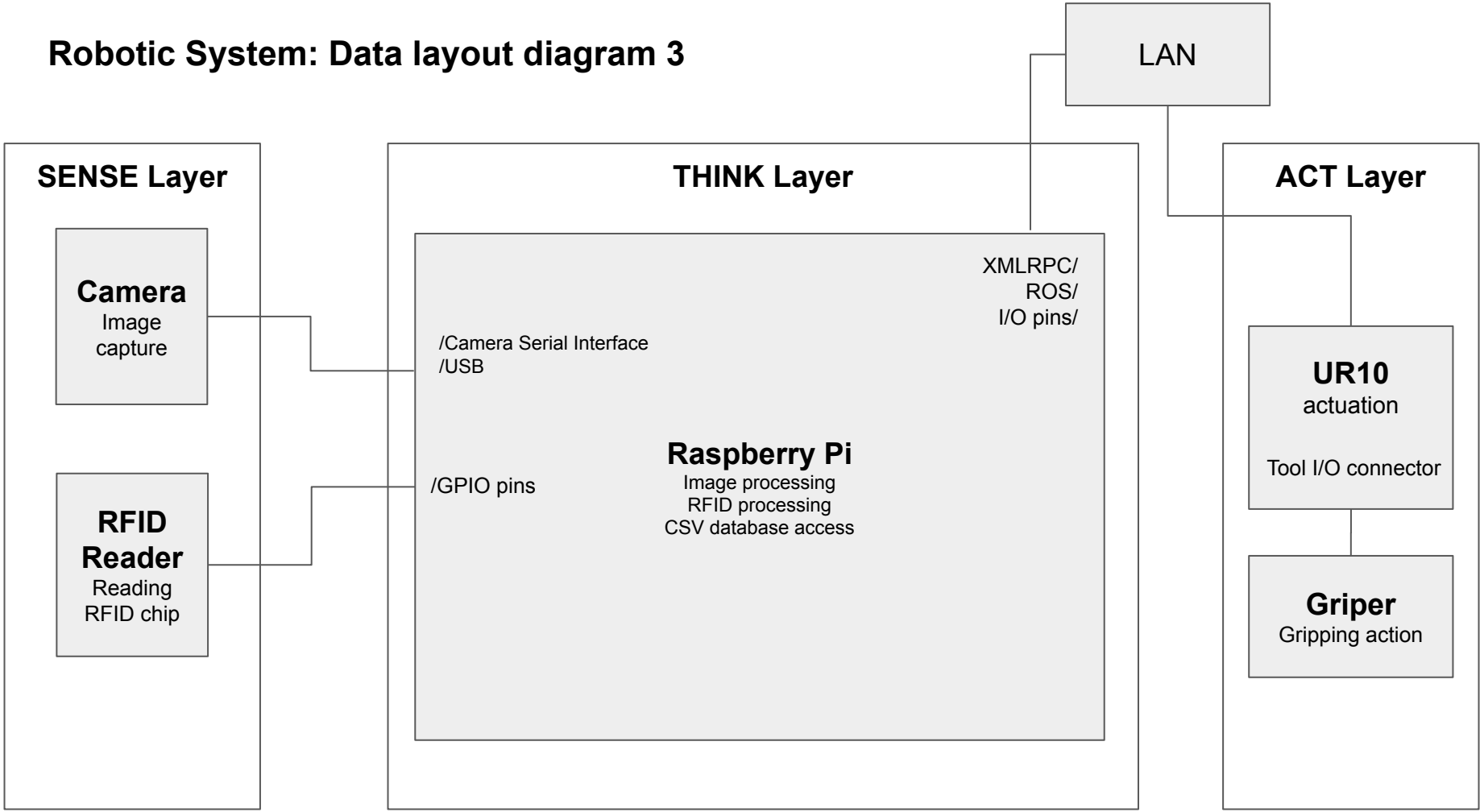
# Robotic System: Data layout initial



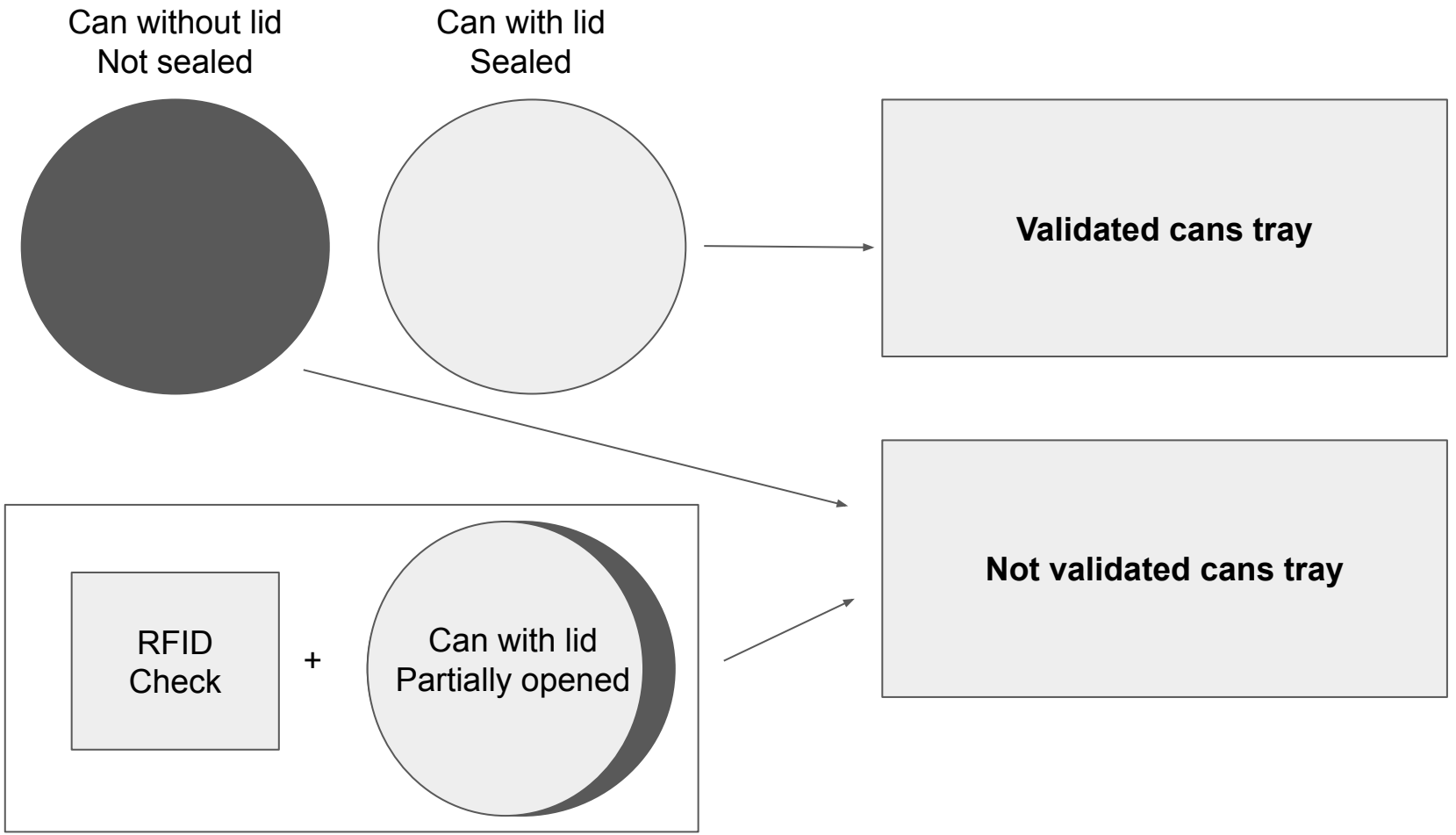
# Robotic System: Data layout diagram 2



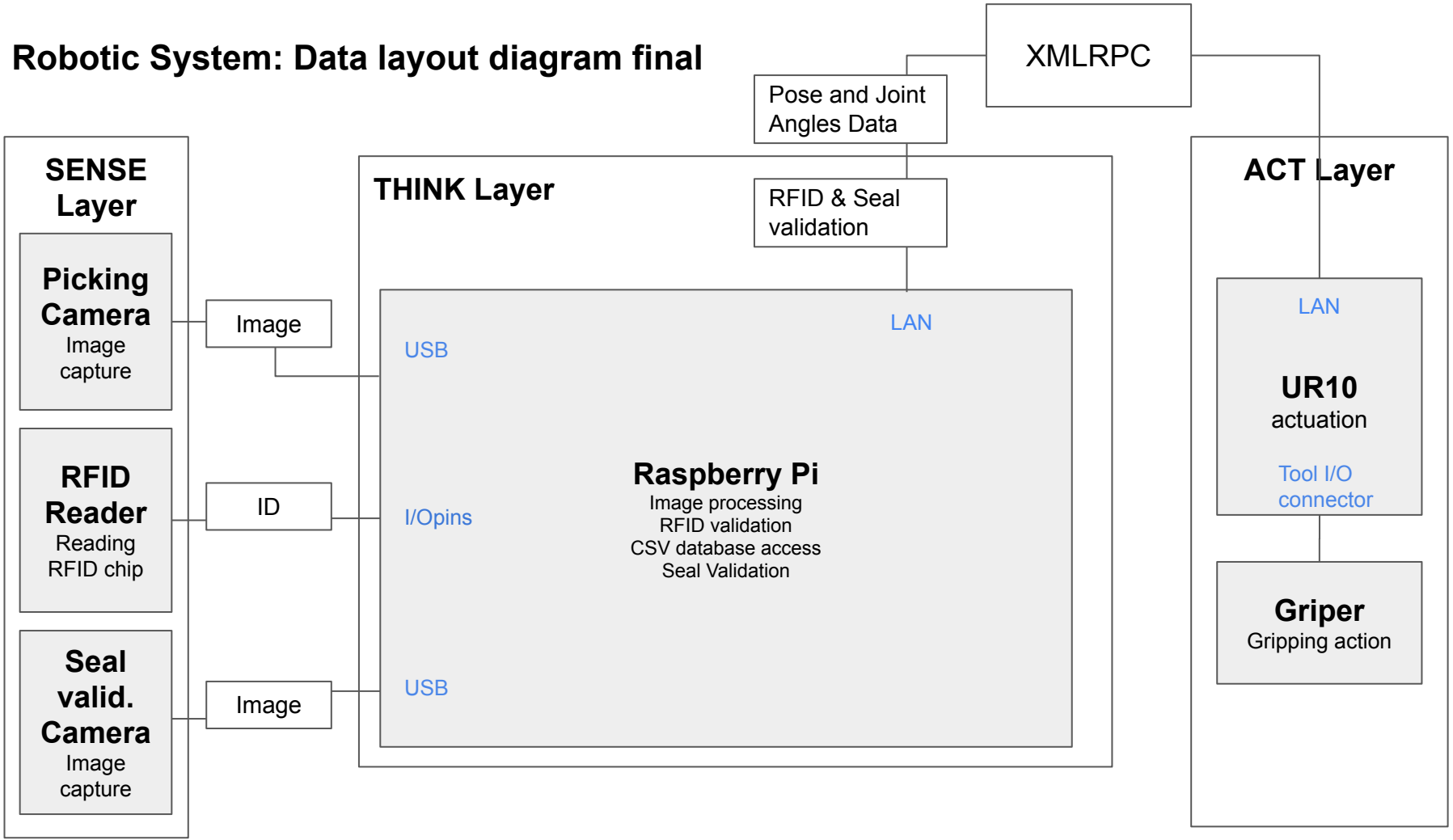
# Robotic System: Data layout diagram 3



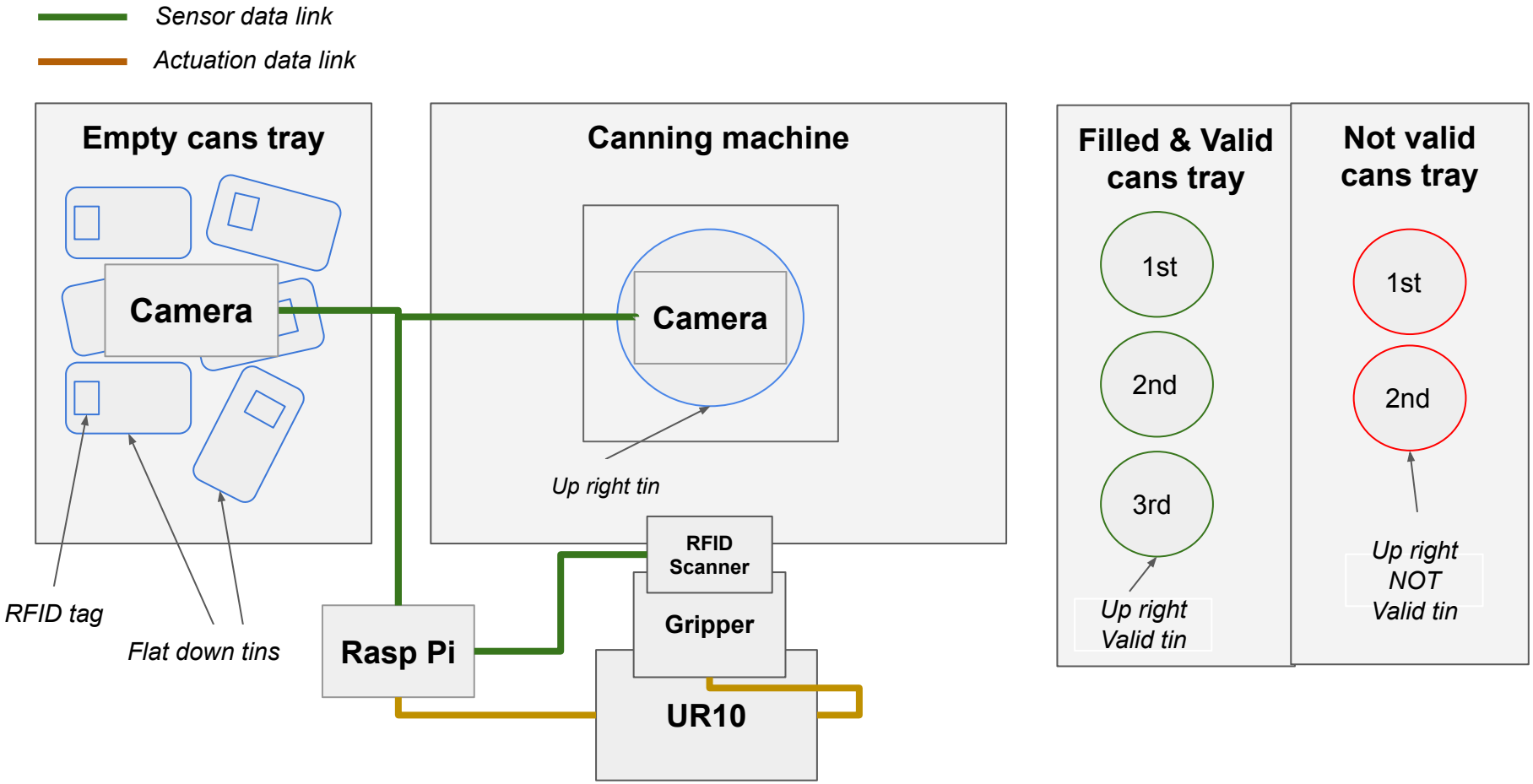
**Can diagram: top view**



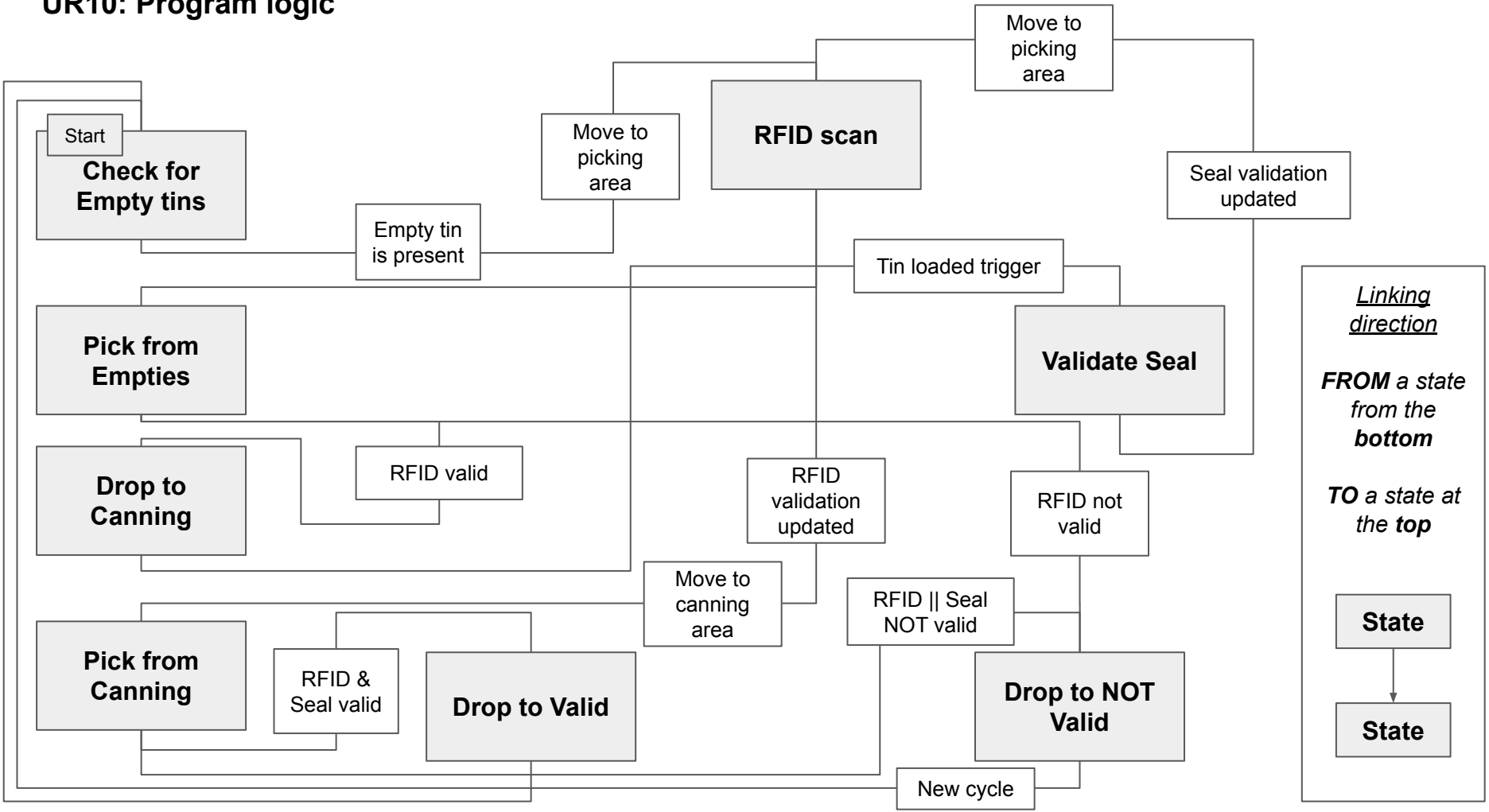
# Robotic System: Data layout diagram final



# Robotic System: Physical layout

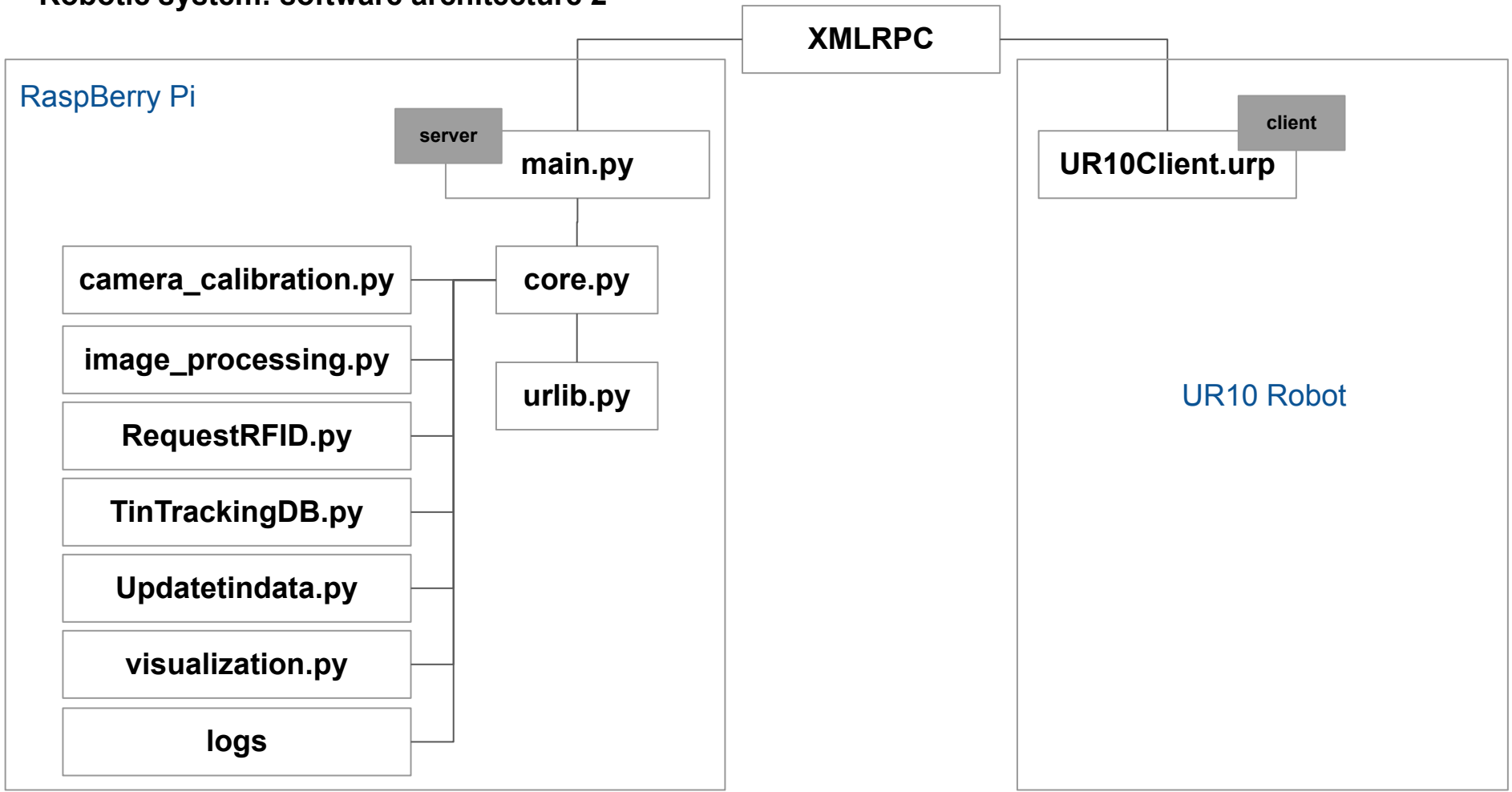


# UR10: Program logic

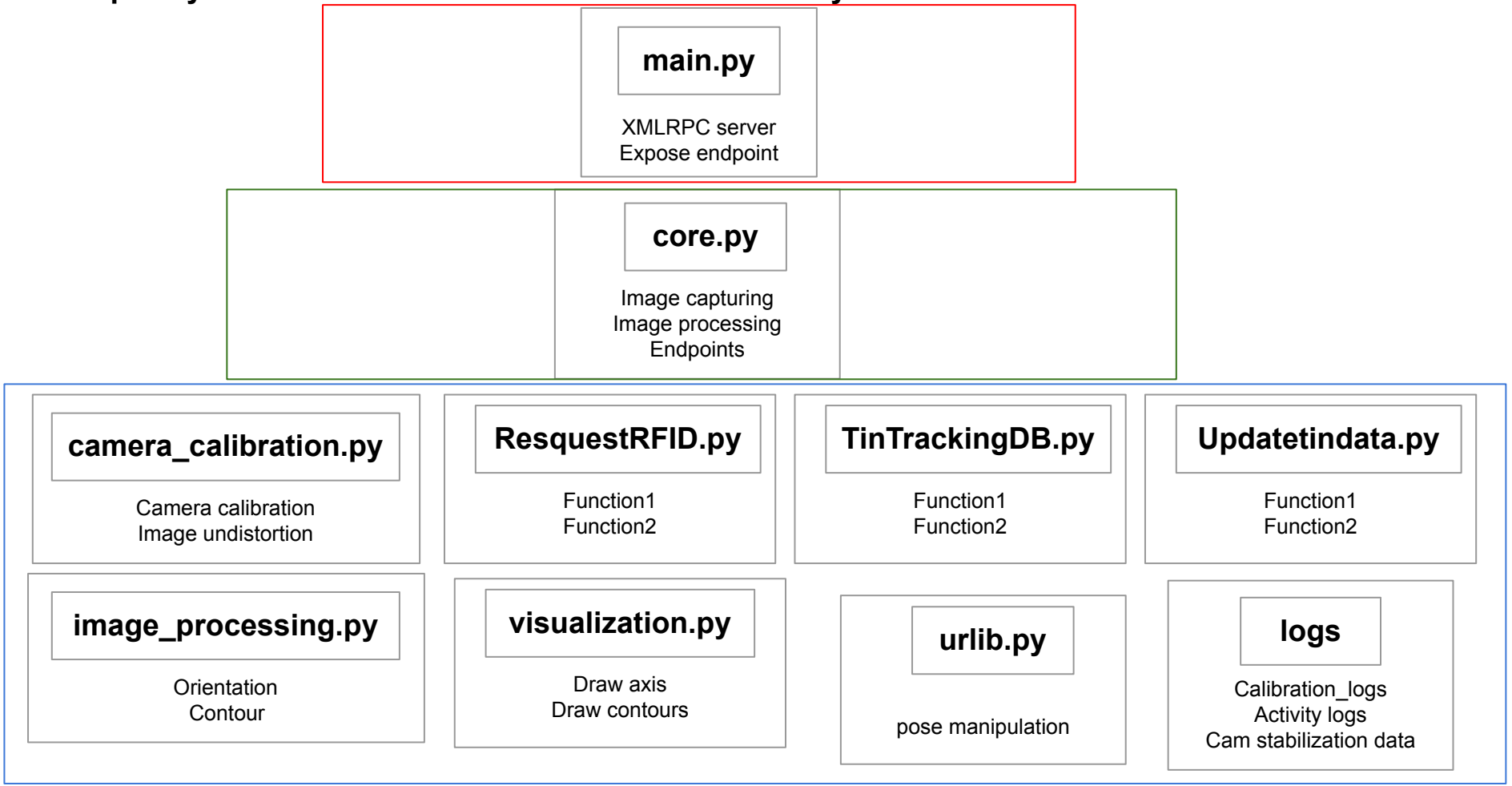


# Robotic system: software architecture 1

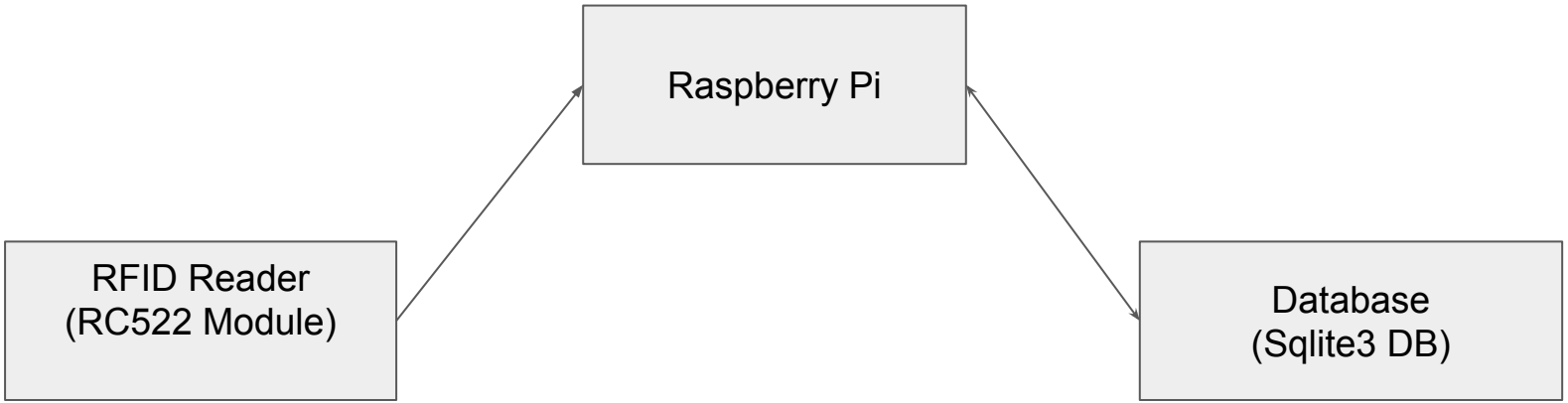
## Robotic system: software architecture 2



# Raspberry Pi: software architecture with abstraction layers



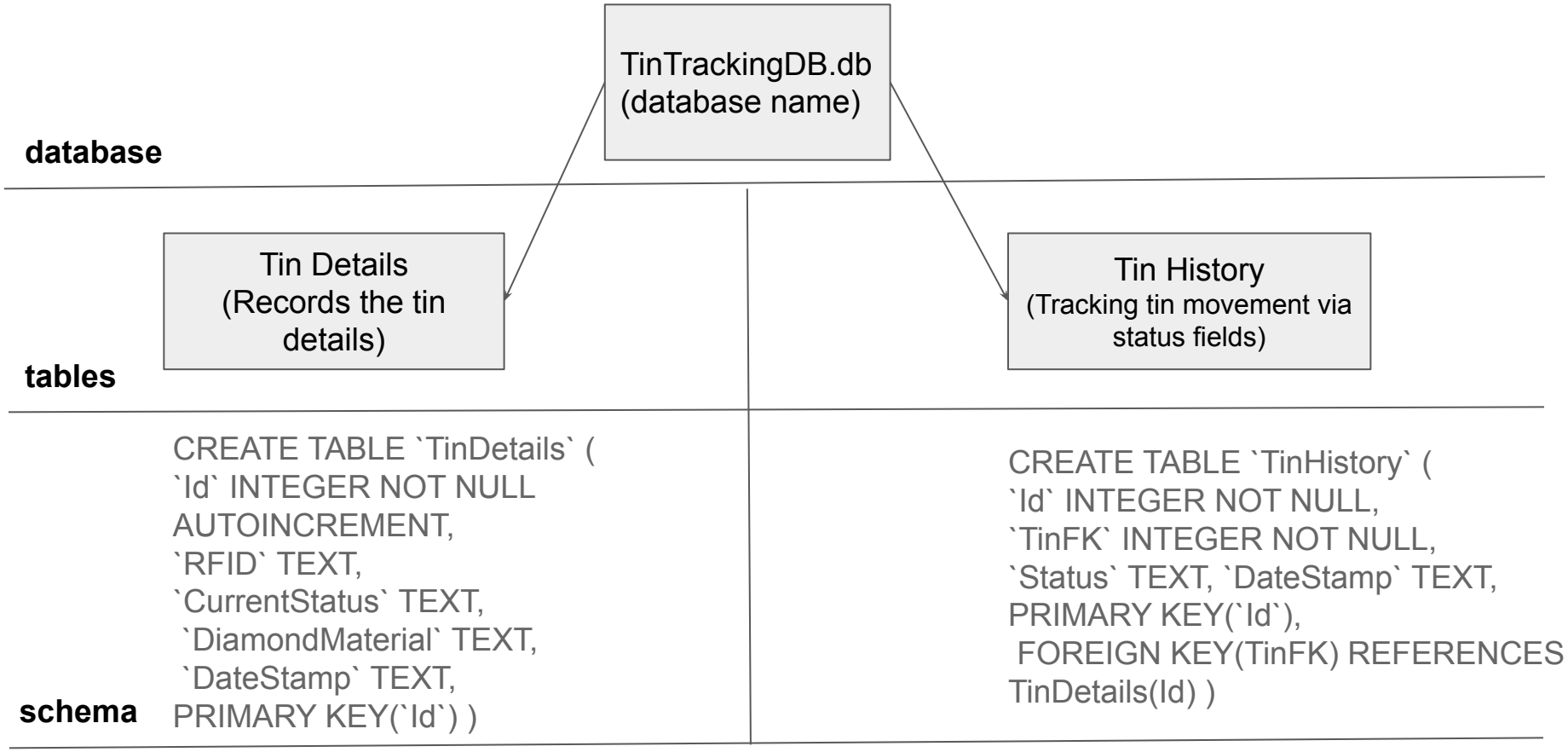
# Tin Tracking Architecture



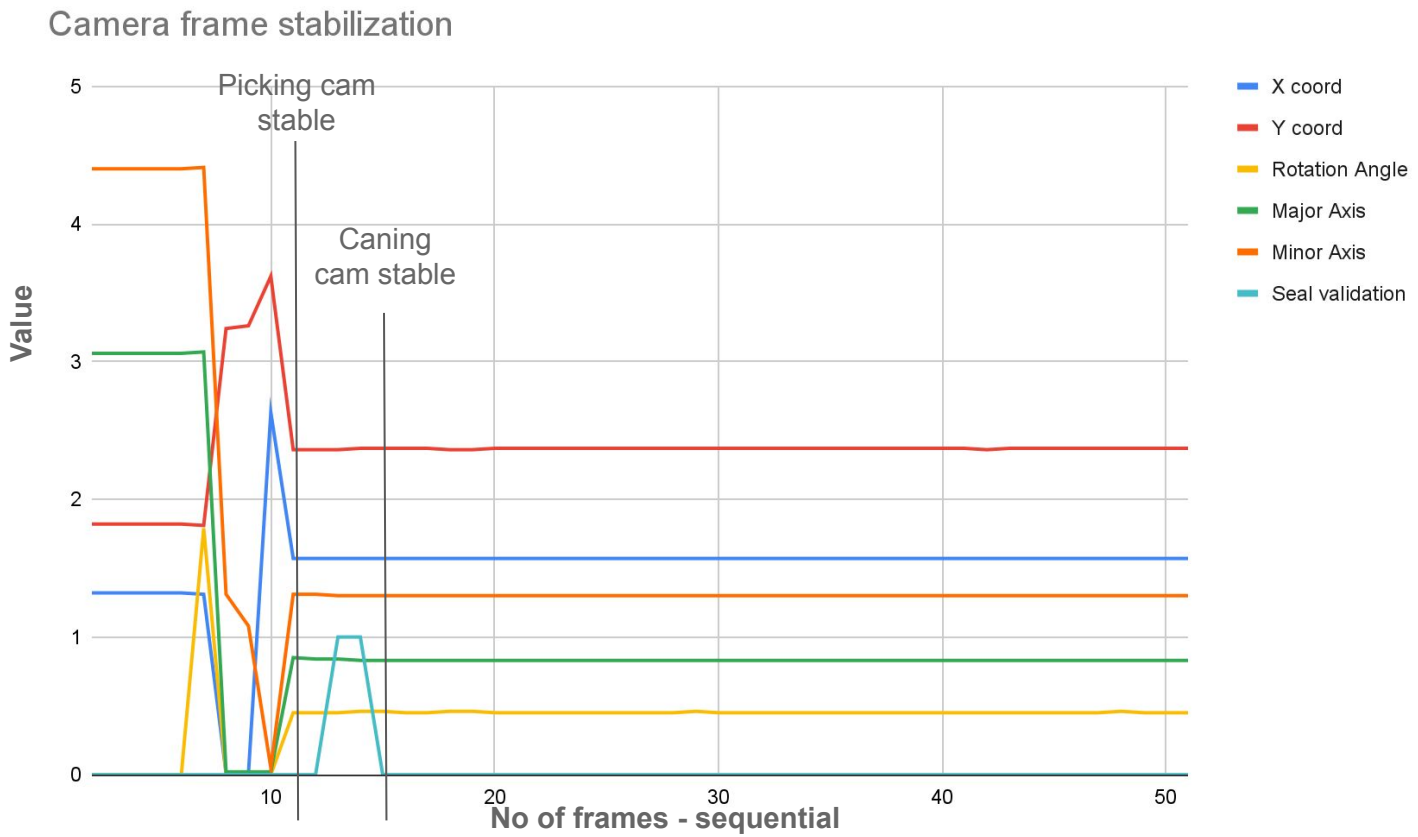
# RC522 Connection

| Pin | Wire Colour | RC522 Connection |
|---|---|---|
| 1 | Pink | Power |
| 6 | Pink with Tape | Ground |
| 19 | Purple with Tape | MOSI |
| 21 | Purple | MISO |
| 22 | Grey | RST |
| 23 | Orange | SCK |
| 24 | Brown | SDA |
| - | - | IRQ |

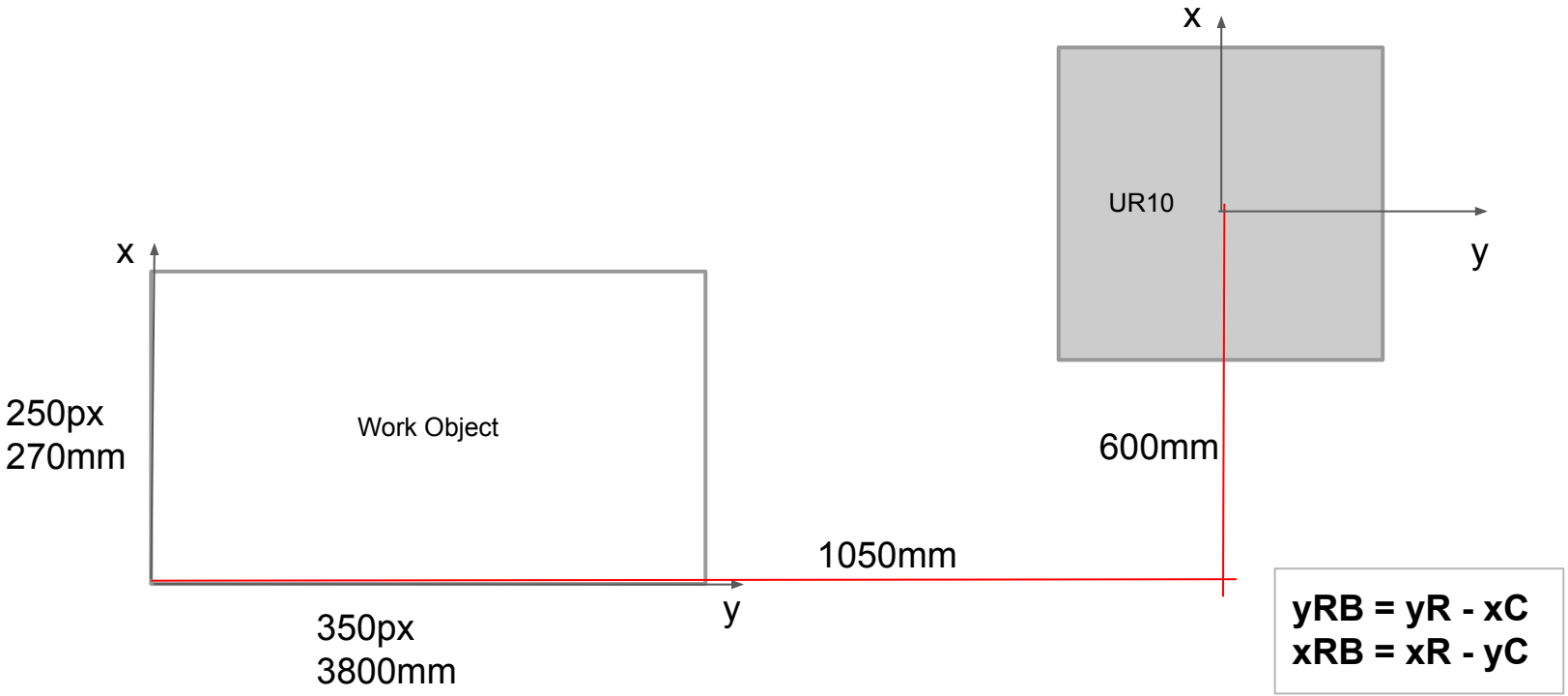
# Database structure



# Camera (picking and caning): Frame stabilization timeline from 0 to 50 frames



# Picking camera: work object information in relation to UR10 base (integration)




**yRB = yR - xC**
**xRB = xR - yC**

R - Robot
C - Camera

- **z = 0, and does not require transformation**

# Picking camera: tin rotation 0 to 180 degrees in relation to UR10 base (integration)