

SmartMug

The clever way to order

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Architecture

Android App: Connects to the SmartMug

Wifi access: Wireless Communication

Mug: Standard Mug

Smart mug: Extension to make your mug smart

Functions

Connection to mug via **bar code reading**

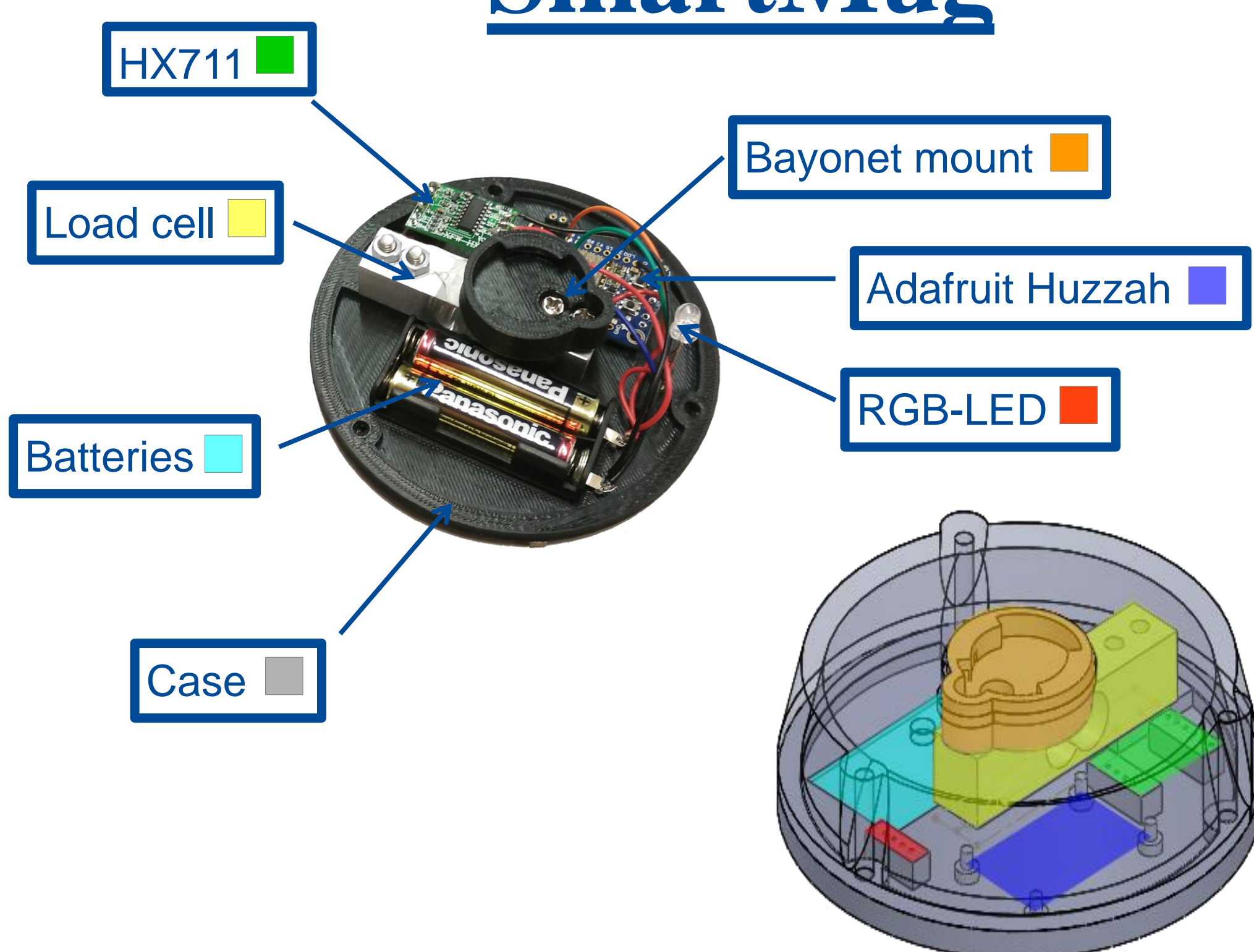
Liquid level sensing via weight (HX711 circuit)

Drinking **statistic analysis** via app

Interactive **drinking games** via app

Waitress communication by changing mug color

SmartMug



SmartMug App

Connect to your SmartMug via Bar Code or by entering manuell the IP Address

Enter your personal Data for some statistics



Display some statistics like promile

Order via SmartMug

Play some drinking games

Connection

SmartMug Protocol

Tag 1byte	Length 1byte	Value n bytes	End of Frame 1 byte
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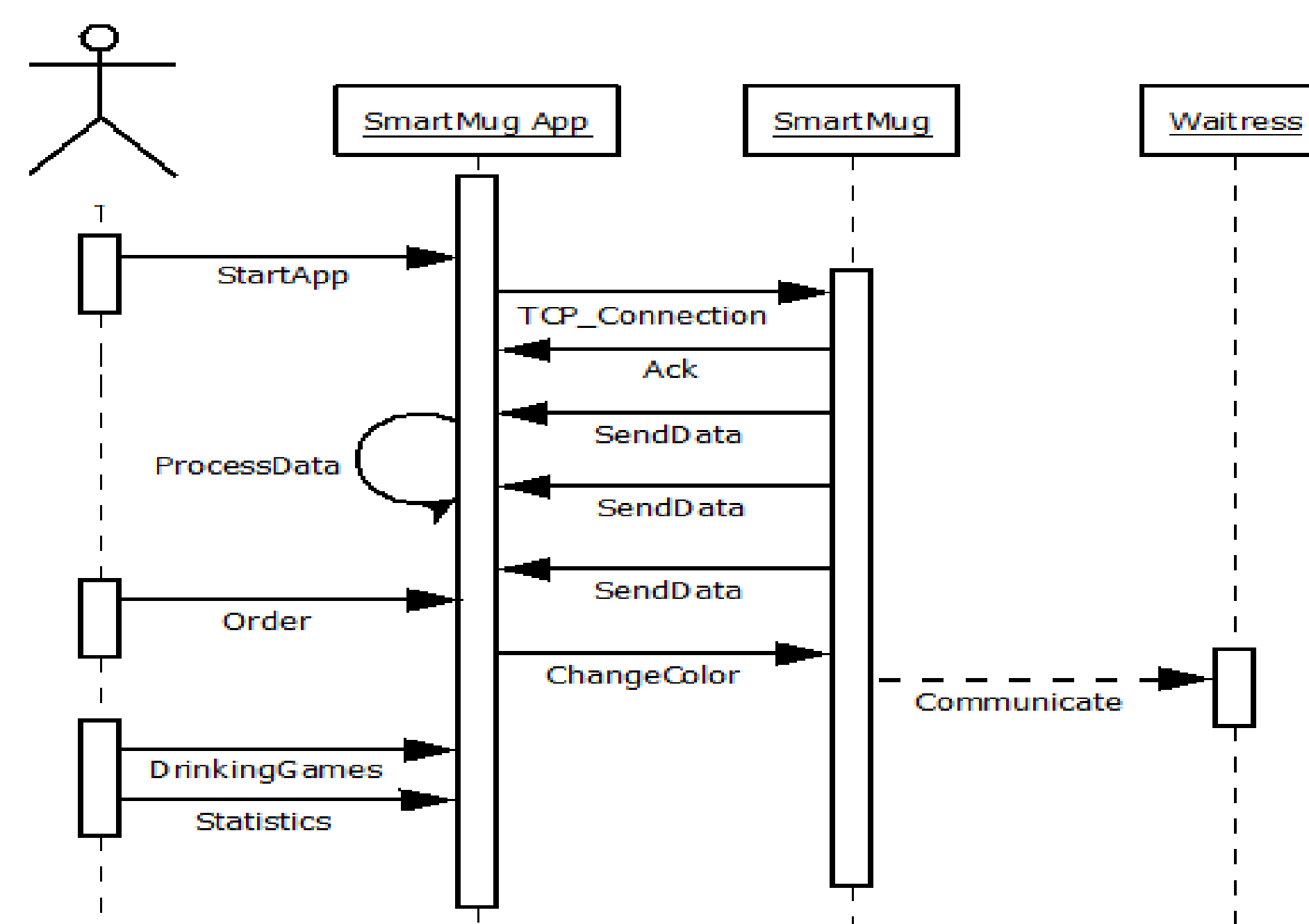
TCP/IP → Wireless LAN according to IEEE802.11b/g standard

Multicast DNS:

Service name: smartmug

Service type: _smartmug._tcp

Sequence diagram



Outlook

- Connection to the barkeeper → Live data for the barkeeper, direct re-order function
- Payment via app
- Capacitive measurement instead of weight
- Connection between taps and SmartMug for automated and exact measurement of the filling level

More Details under:
<https://github.com/martin-dold/smartMug>

