

# 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**

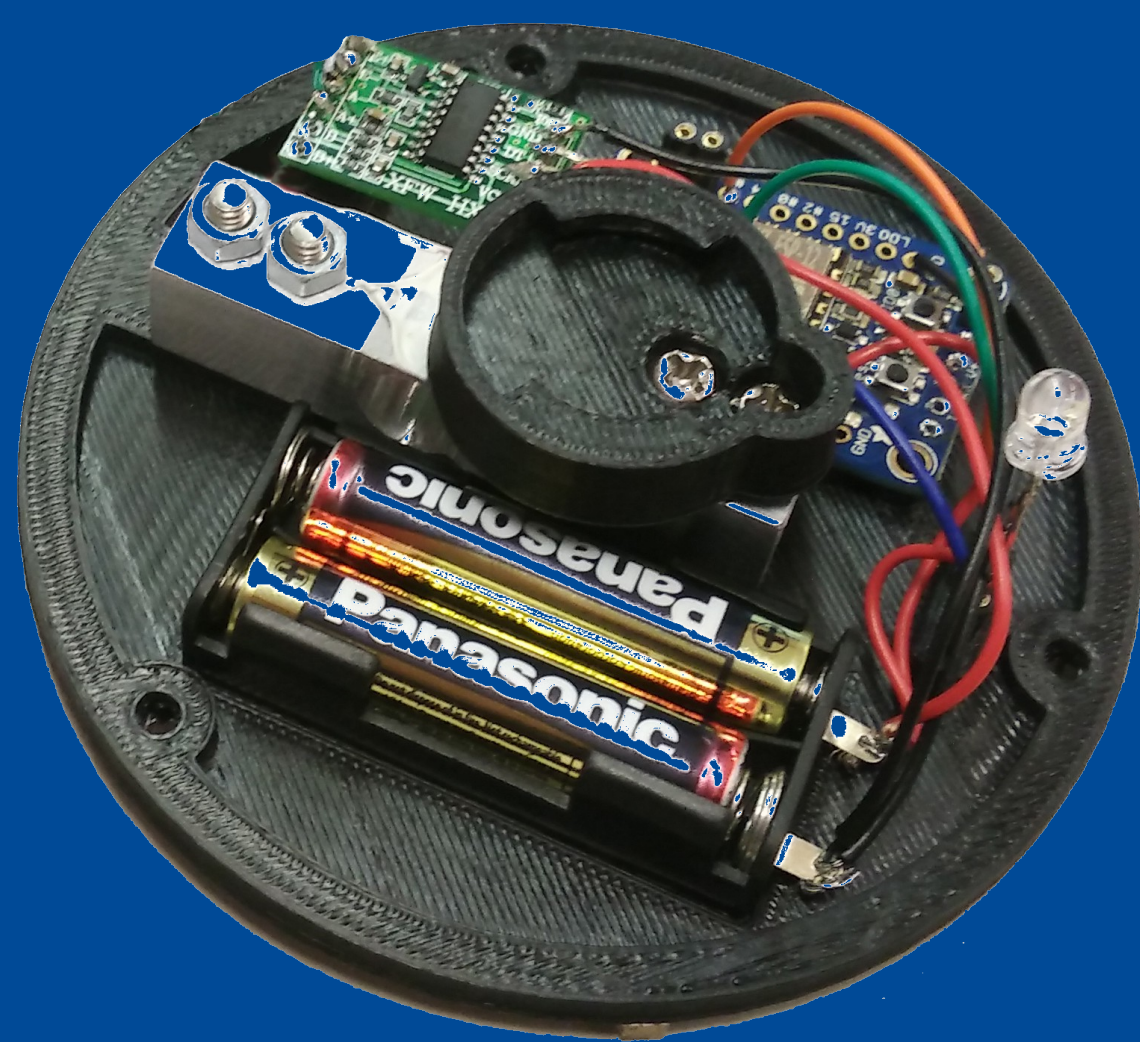
**Liquid level sensing** via weight (HX711 circuit)

Drinking **statistic analysis** via app

Interactive drinking games via app

Waitress **communication** by changing mug color

## SmartMug



## SmartMug App

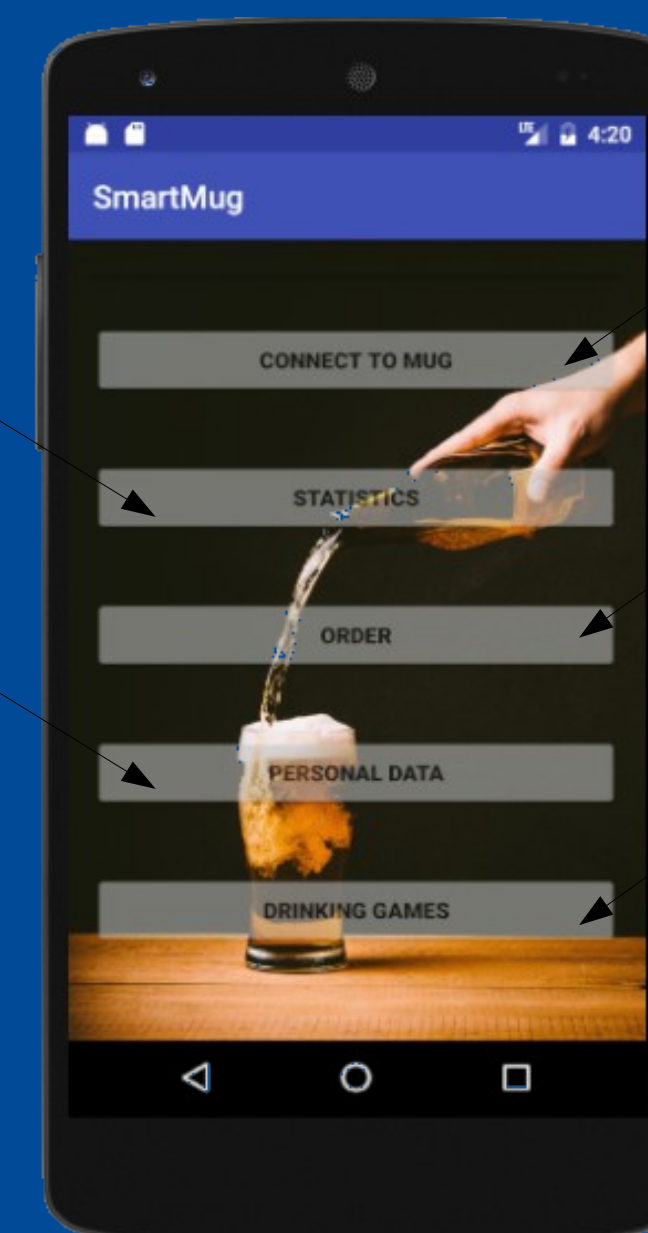
Display some statistics  
Like promile

Enter your personal Data  
For some statistics

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

Order via SmartMug

Play some drinking  
games



## Connection

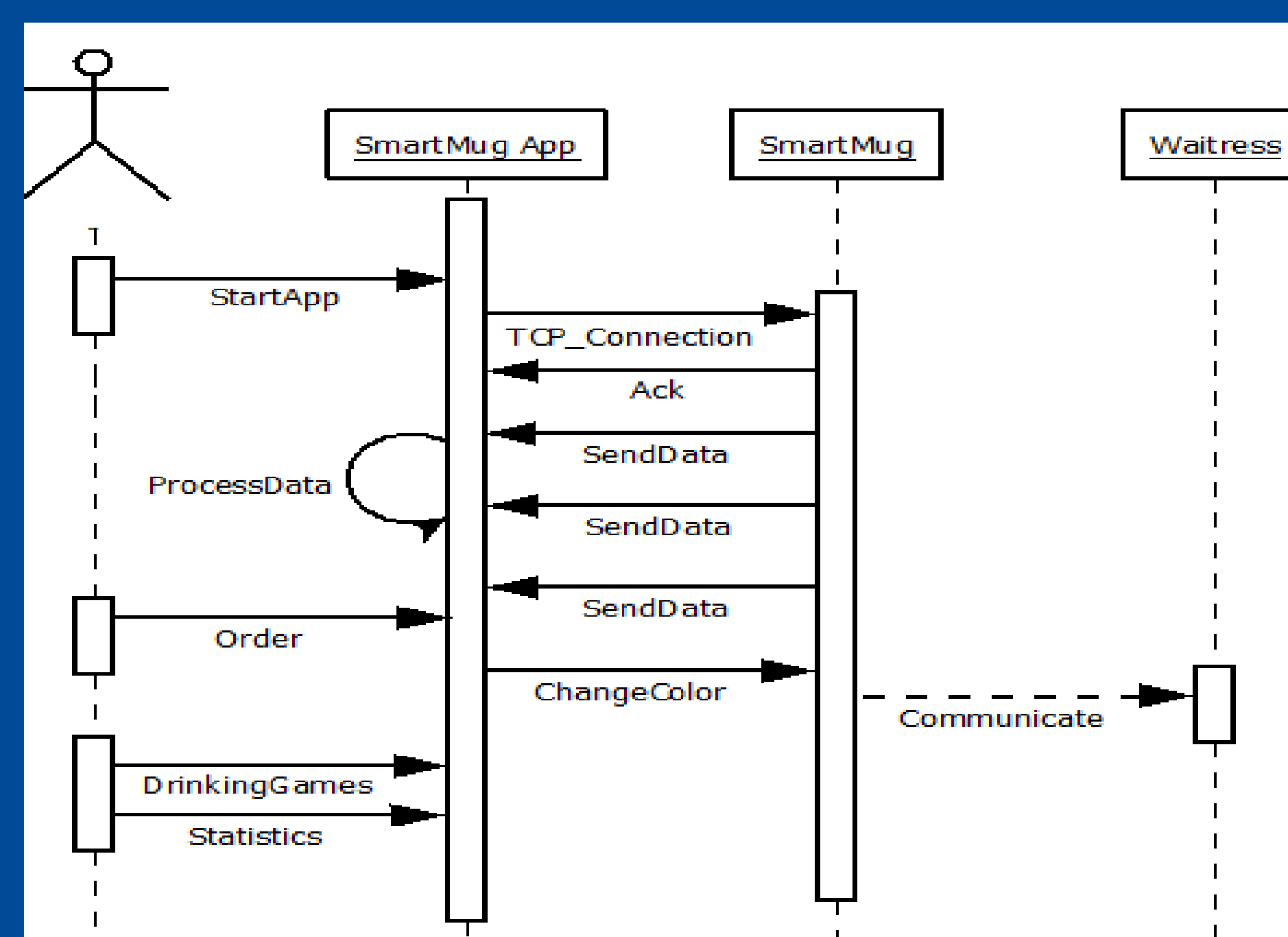
SmartMug Protocol

Tag	Length	Value	End of Frame
1byte	1byte	n bytes	1 byte

TCP/IP → Wireless LAN according to  
IEEE802.11b/g standard

Multicast DNS → Service name and Service type

## Sequenzdiagramm



## Outlook

- Connection to the Barkeeper → Live Data for the Barkeeper, direct re-order function
- Payment via app
- Capacitive measurement instead by weight
- Connection between taps and Smart Mug for automated exact filling level