

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

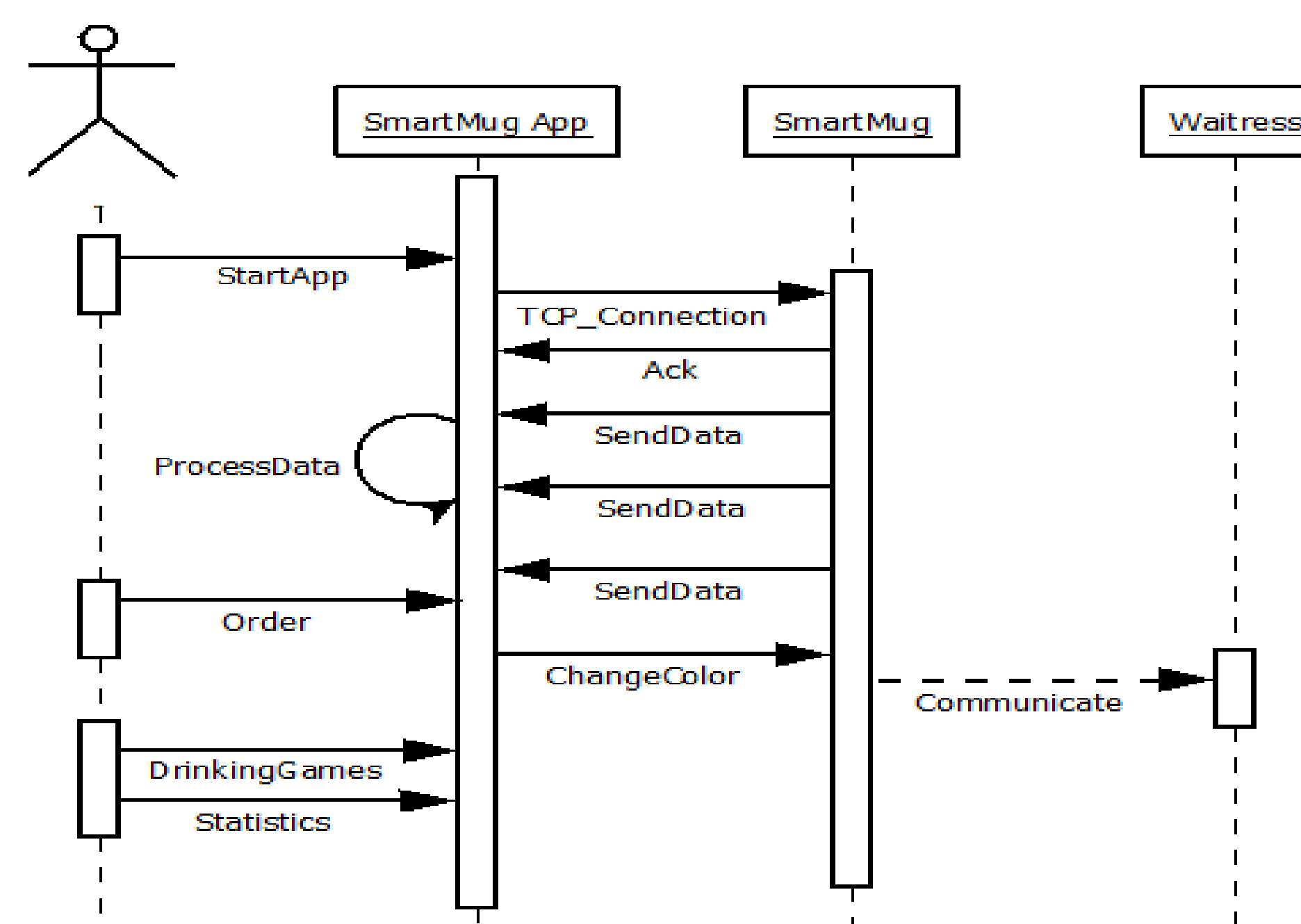
Tag	Length	Value	End of Frame
1byte	1byte	n bytes	1 byte

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

Multicast DNS:

Service name: 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 by weight
- Connection between taps and Smart Mug for measurement automated and exact the filling level

