

# IoT Project: Height / capacity monitor

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- design of a system to check level of fluid in a basket
- measure height using an ultrasonic sensor and send it to central computer
- show if certain thresholds (low/high) are surpassed at basket and central computer using LEDs and Node-Red
- thresholds can be dynamically set using the Node-Red interface and are sent to the ESP connected to the sensor

# Circuit

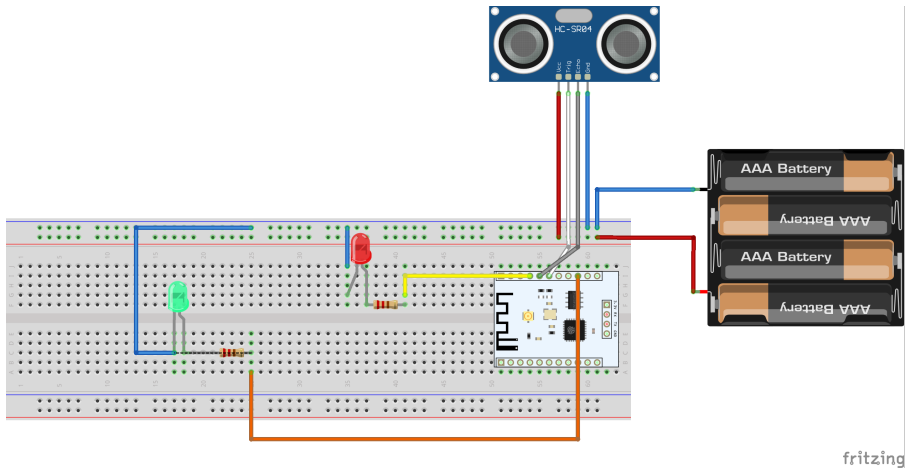


Figure: Circuit of the system

# Node-Red Flow

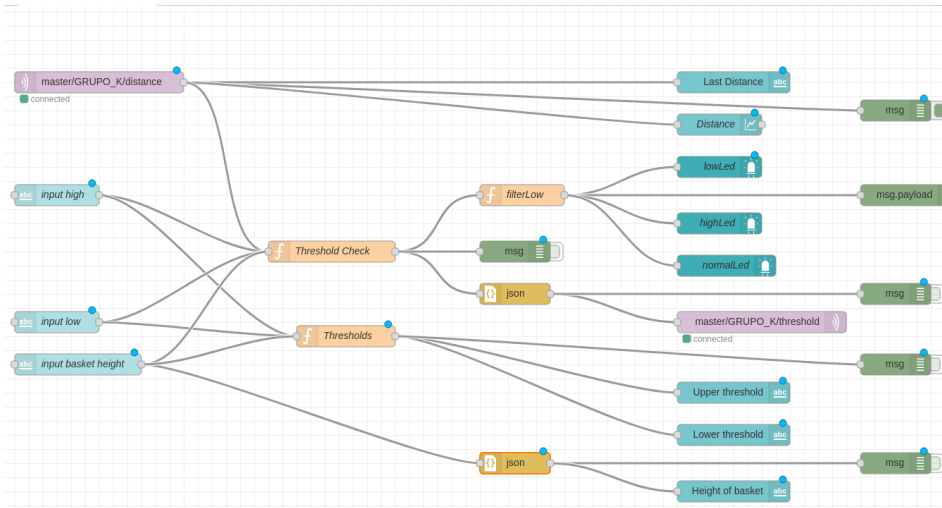


Figure: Node-Red flow

explain important functions of written cod

# Limitations

- measurement fluctuations of the sensor → not reasonable values have to be filtered
- needs constant Wifi connection between central computer and ESP to recognize thresholds
- energy consumption scales with frequency of measurements

# Thanks for your attention!