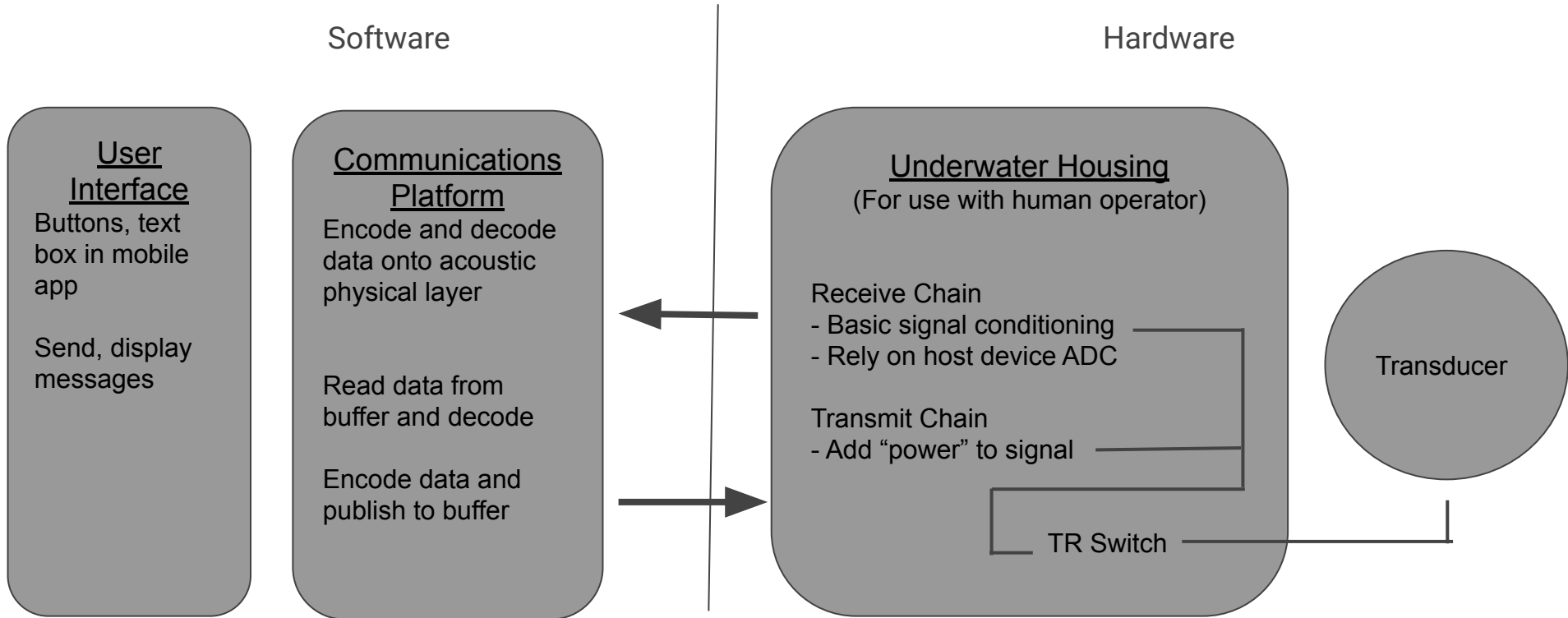


Low-Cost Underwater Communications

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System Architecture



Components

- Mobile App
 - Buttons instead of a text field to facilitate underwater use (no typing)
 - Selectable modes (above water or underwater) with relevant message options
 - Message display that shows last several messages so that a message isn't missed if one is received immediately afterward
- Chirp
 - Uses Frequency Shift Keying (FSK) for its modulation scheme, due to its robustness in multipath propagation
 - Handles DSP, Error detection (CRC) and error correction (Reed-Solomon)
 - Supports ultrasonic frequencies for communication, as well as multichannel communication
- Hardware



Demo

