Baby diaper change detector

Goal: To develop a device that will indicate to a parent when a child has significantly defecated and/or urinated in a diaper that then needs changing (without the need to check the diaper by opening it or smelling it)

Justification: The constant need to check diapers is a burden to parents (e.g. lifting the baby, smelling the diaper closely). Delays in changing result in discomfort to the child as well an increase the chances of leaks. While mistakenly open clean diaper is an economic and environmental waste. Moreover, under certain conditions regularly checking is not convenient (e.g. multiple hospital beds, during travel).

General specifications: The device should work with a majority of diaper designs. The device should not puncture or reduce the holding integrity of the diaper. The indicator may be in the form of a light and/or sound from a device connected to the child’s shirt. Device cost must be minimized and re-usability of specific components specified. False alarms should be minimized. The device should under no conditions effects health or comfort of the baby. The device must be very user-friendly and cosmetically appealing (cute). The device should not interfere with baby movement. The device should not interfere with dressing or holding the baby.