The Amulet Wearable Platform

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Amulet is an open wearable platform enabling long-term studies in health and sensing.

The **Amulet** is a smartwatch with months-long battery life...

....which communicates with bodyarea sensors like our EDA sensor... ...enabling a diverse set of applications and interactions.







Open-hardware, opensoftware wristband with support for multiple apps, inbuilt sensors, BLE



Wearable electro-dermal activity (EDA) sensor

Pedometer 80%	Sunlight	80%	EMA	72%
÷ 327	Total sun exp: Oh 13m		Rate your urge to smoke now?	
Scal:1000			None Little Moderate	
Gounizooo				
	Ideal	169	ŝ	kip

App screenshots

The Amulet Wearable Platform is an open-hardware, open-software research platform, currently deployed in two health-related research studies, monitoring stress and geriatric physical activity.

Amulet platform

Isolates applications and generates final firmware for upload to Amulet.

AmuletOS provides an interface for the programmer to sense, communicate over BLE, and interact with the user through

Stress monitoring

Assessing the reliability and validity of using the Amulet to measure stress.



Activity Monitoring

Amulet applications for engaging older adults in physical activity.

Thera-band with forcesensing handle

buttons, the screen, and the buzzer.





The Amulet can collect sensor data such as EDA and heart rate and use these data to generate an event-based ecological momentary assessment delivered to the user via the Amulet UI. Participants can then respond about how stressed they feel in the moment.



Activity type (sedentary, moderate, vigorous), upper and lower extremity strength (using a Bluetooth-enabled resistance band and a simple sit-to-stand chair test), and a pedometer will support remote sensing and health behavior change by providing real-time, selfmonitored feedback.

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