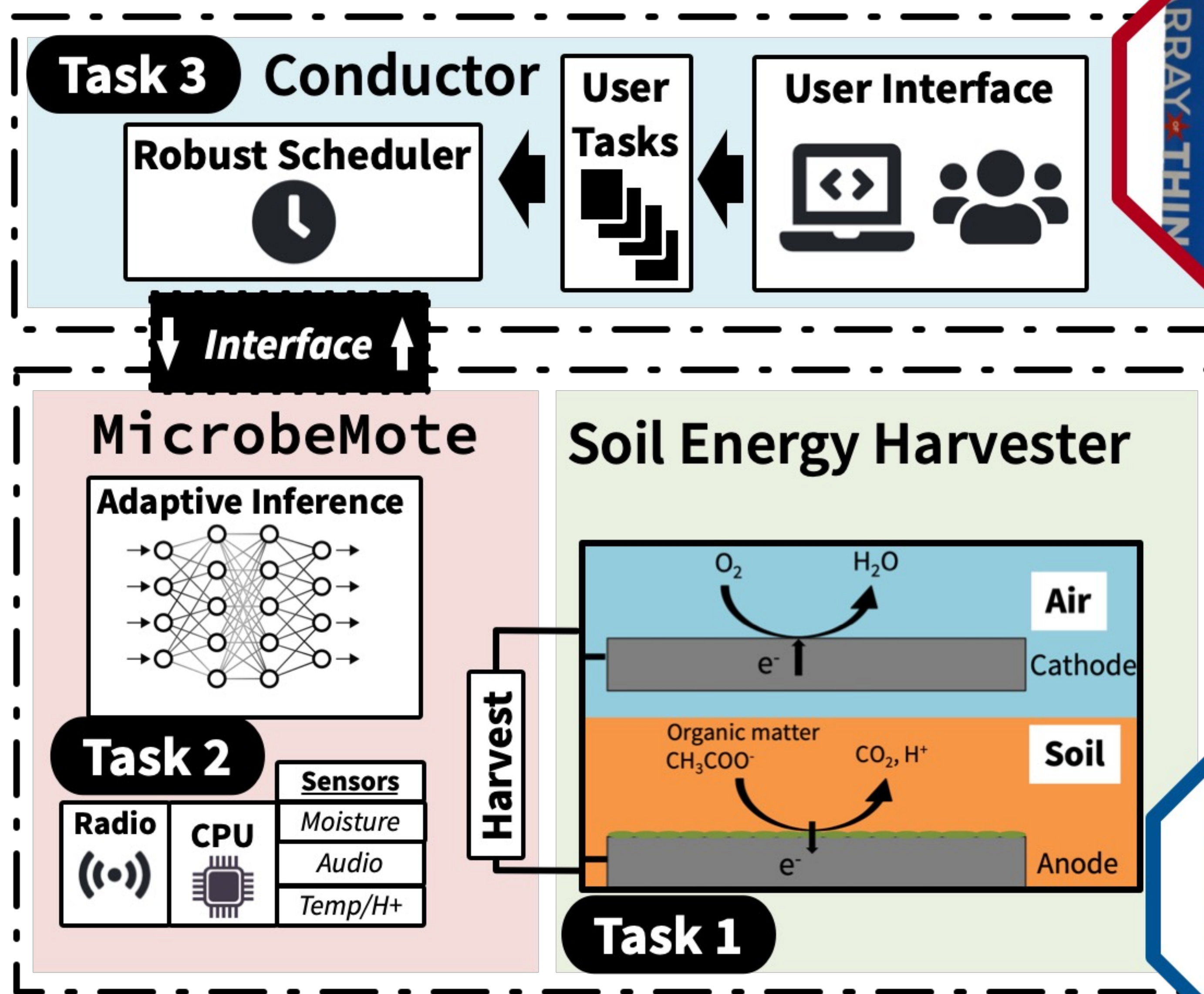




# CPS: Medium: Batteryless Sensors Enabling Smart Green Infrastructure

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## Smart Green Infrastructure



MicrobeMote: a soil powered smart device.

## Scientific Impact:

We advance ability to coordinate learning tasks across a network of intermittently powered CPS.

We co-design soil microbial energy harvesters, power models, and CPS.

## Broader Impact:

- Smart green infrastructure will enable a better understanding of the health of a City (Chicago) in terms of habitat and stormwater.
- Non-profit, conservation partners.
- Smart farming deployments.

## Applications and Partners

Stormwater Management		The Nature Conservancy	
Habitat Monitoring		LINCOLN PARK ZOO	CHICAGO BOTANIC GARDEN

## Challenge:

How can we enable **long term** and **data rich** infrastructure and environment monitoring?

**Solution:** Augment *green* infrastructure installations with soil powered battery-free devices that sense, actuate, and coordinate smart city applications.