Battery and Energy Storage

- **Solar Panel**
  - 2 m^2 of surface
  - Efficiency η=43%
  - Around 147 W of power all year (including nights)
    - More optimistic value: 733W (when the Sun shines)
    - Total energy in one day of sunshine: 8.9kWh
  - Price: €9.04 per square foot $\implies$ €0.84 per m^2
    - It will cost ~€1.68
- **Total Consumption**
  - 6W for 1 Raspberry Pi High-Quality Camera (times two)
  - 4.5W for 1 UV camera (times two)
  - 5W for 1 RGB-IR camera (times two)
  - Around 300W for all the motors (estimation based on Spot, the *Boston Dynamics* robot)
  - Hence: 331W
  - Only uses 31W if no motor active
- **Battery**
  - Capacity: ~600Wh
  - Weight: ~6kg
  - Power Supply Output: ~400W
  - Runtime: Roughly an hour
  - Price: ~€50 (if we suppose $100 per kWh)