Use case #1: Gather accelerometer and compass data over time from microbits that begin at a designated point A (e.g., the atrium in the Harper Center) and take different routes to a designated point B (e.g., the atrium in the Hixson-Lied Science Building) at a specific time (e.g., 10:45am) of a typical class day

* Hardware: One microbit, battery pack, protective case (mechanism for attaching)
* Software: micro-python, python, 3d printing software
* Subtasks:
  + 3d print case (Dom)
  + write code for sensing (cat)
  + Test battery life (Sam)
  + Design 3d case (Dom)
  + Optimize output frequency for compass and accelerometer (Sam)
  + Determine hardware configuration (David)
* Purchase:
  + Velcro
  + 3d filament
  + batteries

Use Case #2: Gather temperature differentials over time from microbits placed in two places on Creighton's campus (e.g., the Jesuit Gardens and the top level of the 24th Street Parking Garage) over a 24 hour period of time.

* Hardware:
  + One Microbit
  + Battery power of some sort
  + 3d case
  + Velcro
  + ??? Temp Probe
* Software: micro-python, python, 3d printing software
* Subtasks:
  + Design case (Dom)
  + 3d print case (Dom)
  + write code for sensing (Cat)
  + Optimize output frequency for thermometer (Sam)
  + Testing battery life (Sam)
  + Testing battery alternatives (David)
  + Determine hardware configuration (David)
* Purchase:
  + Temp probe
  + 3d filament
  + Velcro battery pack (bigger)

Use Case #3: Gather sequential motion sensor data in two points at Creighton (e.g., both ends of the Pedestrian Bridge) to determine the average time that walkers take to cross between the two points.

* Hardware:
  + 2 microbits
  + battery packs
  + 2 infrared sensors
  + 3d printed case
* software
  + micro-python, python, 3d printing software
* Subtasks:
  + Test sensors (David)
  + Test battery life (Sam)
  + Design case (Dom)
  + Print case (Dom)
  + Optimize output frequency for infrared (sam)
  + Write code for sensing (Cat)
  + Determine hardware configuration (David)
* Purchase
  + Battery pack
  + 3d filament
  + Velcro