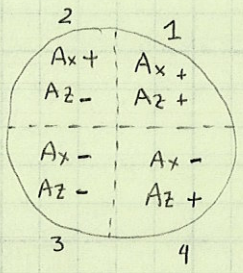
360 Rotation - How to

→ Accelerometer gives values in different quadrants.

→ use the X or Y partnered with the Z to determine which quadrant.

Quadrants



- Now, can write IF loops to handle cases.
- Need to add degree offsets

Quadrant 1: 0°
Quadrant 2: 180°
Quadrant 3: 180°
Quadrant 4: 360°

→ add these to angles to get 360° rotation.

- Using accelerometer values to determine quadrant is not good because fast movements will throw off values.
- Their is no other way to do it so we have to use filtering such as Interpolation

Pseudo code:

Loop through X times
  save first value angle
  compare first angle to next X angles (±10% error)
  If it passes, save angle as new angle

Loop through 5 times
  check previous passed value to new value
  if within range then pass or ignore (Interpolation)

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