

## AhmedOsama\_ HarrySafe

### Harry:

How it works:

- ❖ Harry reads the three IR sensors
- ❖ While the front(middle) sensor reads a black line, then he moves forward
  - If he noticed that he moved on the same road before then he turns left on the first turn
- ❖ If right sensor reads black and left sensor reads white he rotates right
- ❖ When he reaches the end of an empty road he turns his back on go back to road
- ❖ When the two sides are black but the front is white he turns right

### Safe:

How it works:

- ❖ Attach Interrupt for the signal pins of the encoders
- ❖ When an encoder rotates clockwise its counter increases otherwise it decreases
- ❖ If the encoder complete one revolution its counter is set to zero
- ❖ Calculating each angle
- ❖ If the angle is negative then we calculate its positive value
- ❖ When every encoder is in position then the led is turned on