

Github : <https://github.com/dxg397/EECS-476/PS2>

Approach:

Firstly, I added two variables `left_offset` and `right_offset` in addition to the middle one to set the range of the lidar alarm.

Then I created a variable to keep a check on the ping which returns "DANGER Will Devansh!!".

Then I created a loop that checks every ping and find the ping distance, if the ping distance is less than the `min_safe_distance`, then it sets the `unsafe_ping` variable to `TRUE` or else I assumed it's a duplicate ping or pseudo ping.

Observations:

1. Sometimes the robot enters a corner surrounded three ways by walls and it keeps rotating more than once but ultimately comes out of the corner.
2. I purposely changed the `unsafe_ping` Boolean variable to `false` even after coming out of the loop just make it safe.