```
function [angle] = closestAngle(orientation)
  compareArray = [0 45 90 135];
  if (abs(mod(orientation,180)) >= (180-22.5))
      angle = 0;
  else
    for i = 1:4
      if (abs(mod(orientation,180)-compareArray(i)) <= 22.5)
         angle = compareArray(i);
      end
  end
  end
end</pre>
```

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