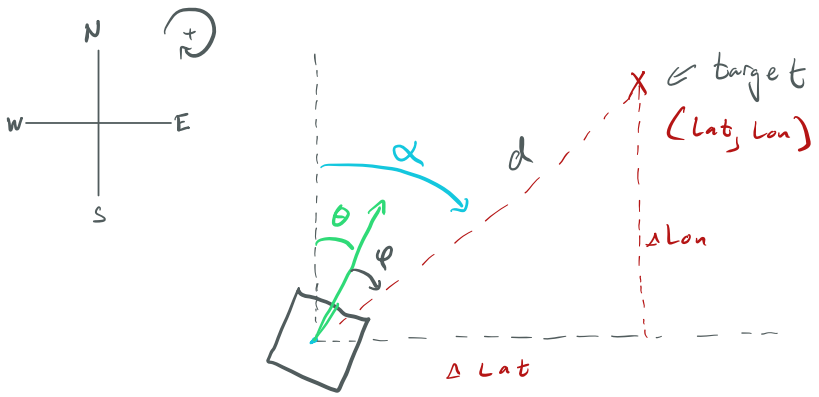
# Stationary Case:




(Lat, Lon)

θ

$\alpha = \theta + \varphi$

$\alpha = \arctan\left(\frac{\Delta Lat}{\Delta Lon}\right)$ where $\Delta Lat = Lat_{target} - Lat_{cur}$

$\Delta Lon = Lon_{target} - Lon_{cur}$

$\varphi = \arctan\left(\frac{Lat}{Lon}\right) - \theta$

$d = \sqrt{(\Delta Lat)^2 + (\Delta Lon)^2}$

Psuedo Code ->

```
double   d_Lat = Target.Latitude - Car.Latitude
double   d_Lon = Target.Longitude - Car.Longitude
double   a = arctan(d_Lat / d_Lon)
double   e = 1e^-3
double   theta = Car.getAngle()
while( |a - theta| > e ){
    if( a - theta > 0){
        Car.TurnRight()
    }
    else{
        Car.TurnLeft()
    }
}
// go toward target
double   d = Sqrt( d_Lat^2 + d_Lon^2 )

while (|d| > e){
    Car.MoveForward()
}
```