Player is at (0,0). Forward direction/pdx/pdy set according to Player Angle (see pdx pdy diagram)

Note: when moving sidewards, px is +- pdy and py is +- pdx as the player is moving perpendicular to the player angle

Note: +ve or -ve values of px and py are in relation to the forward direction not the axes on the graph

$px = 0$ $\quad py = 0$

$pdx = 10$ $\quad pdy = 6$