

Fig. S1

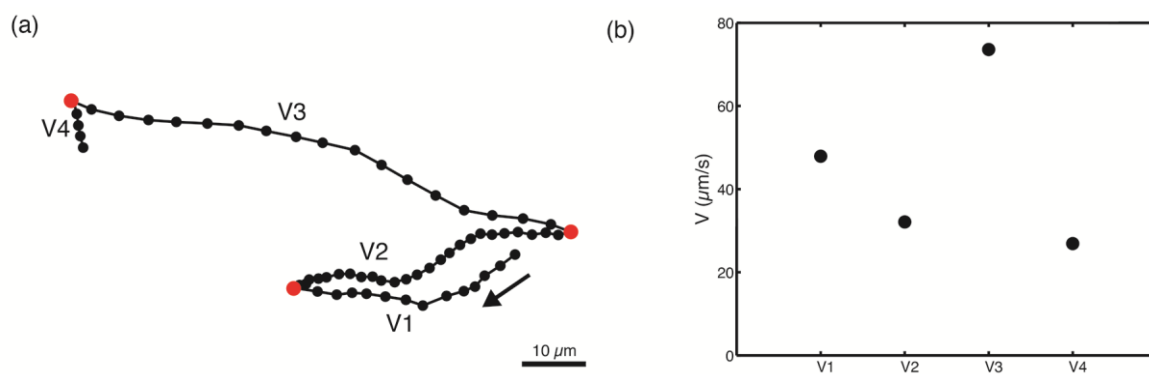


Fig. S2: collected from swarm and diluted in liquid, wild-type swims faster than hyperswarmer *fln(v178g)*. dots denote median velocities. lower and upper bound represent respectively 25% and 75% percentile of velocities distributions.

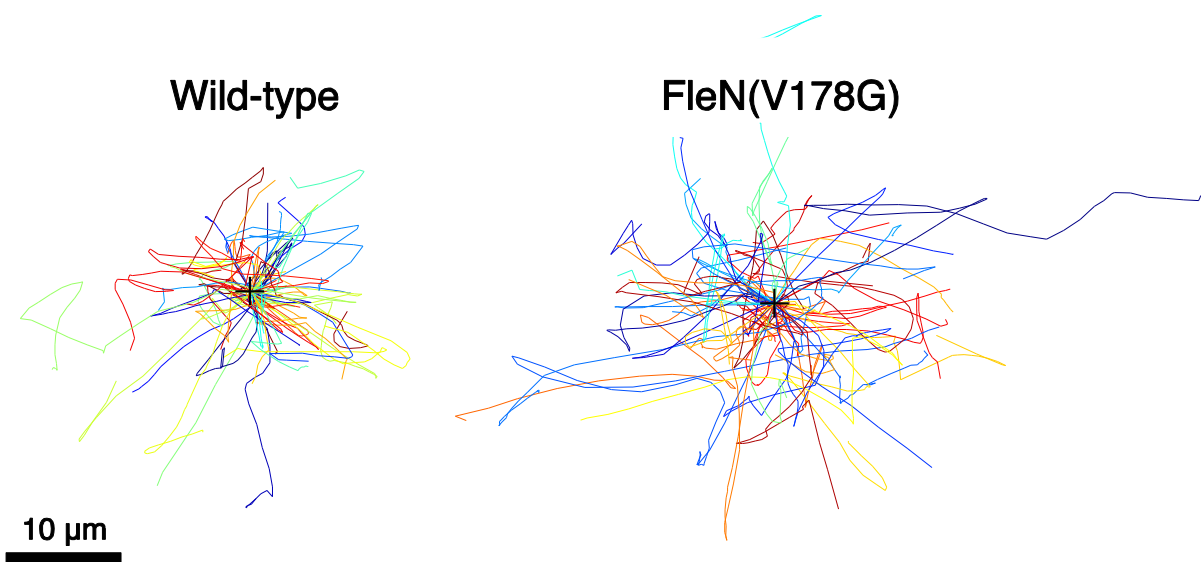


Fig. S3

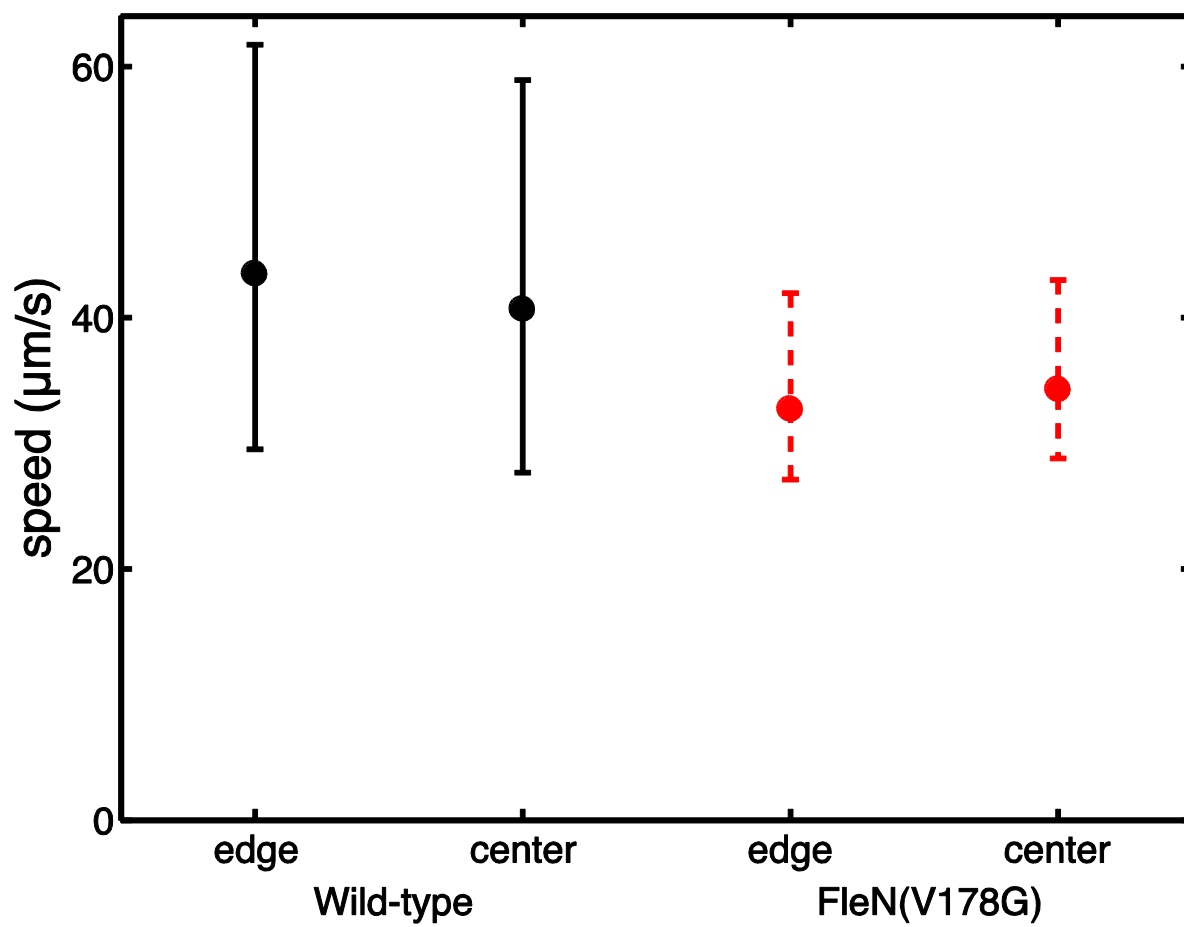


Fig. S4

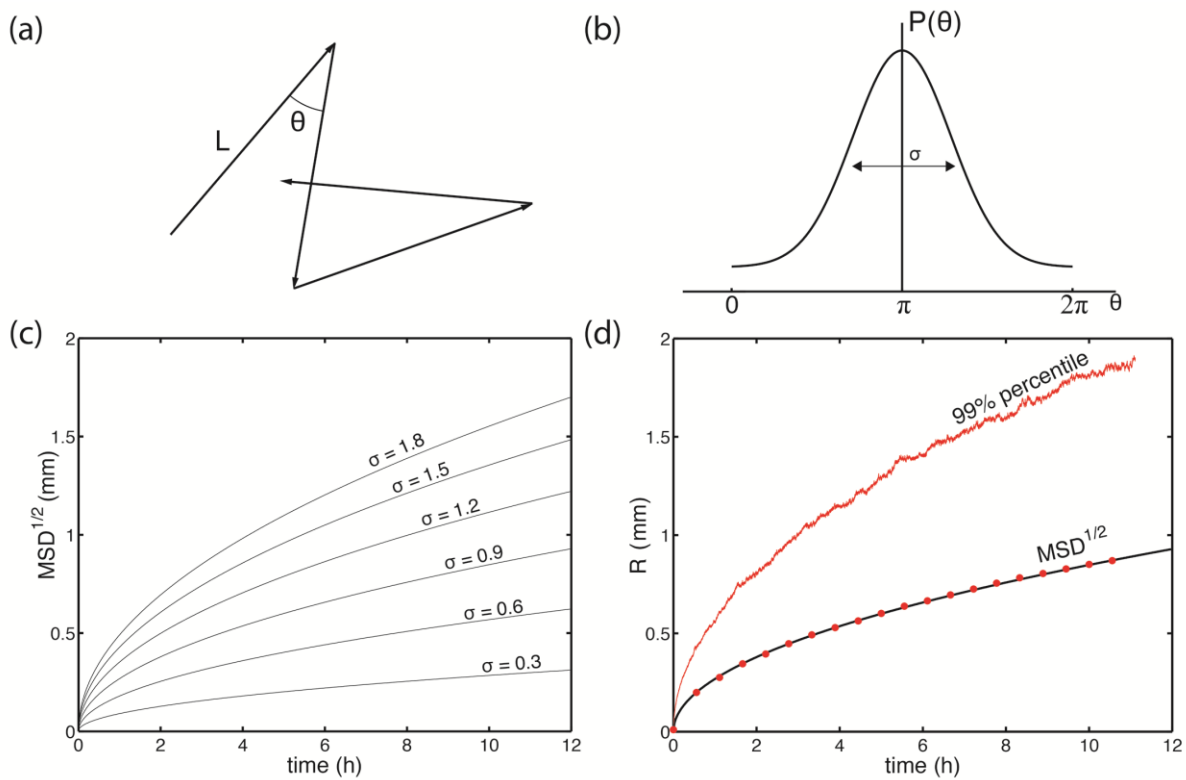


Fig. S5: 50 trajectories of detected bacteria swimming through agar, over a duration of 3 seconds. each trajectory is shifted in order to set the initial point at the origin (black cross).