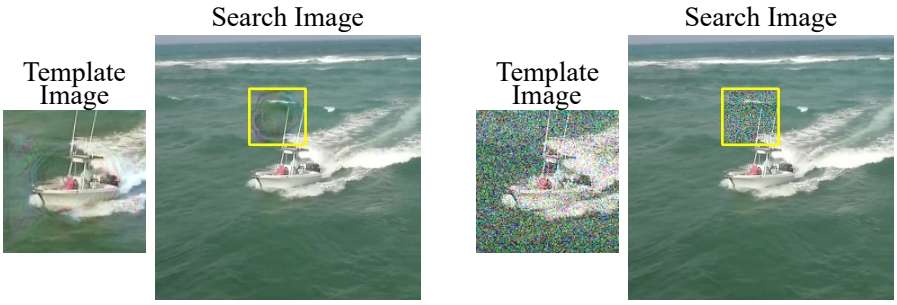
Table 1: Attack performance using random patterns. The attack performance is evaluated according to AO/SR on GOT-Val.

Perturbations used to perfrom attack	Untargeted Attack		Targeted Attack	
	AO	SR	AO	SR
Trained Perturbations	0.153	0.123	0.840	0.890
Similar Pattern	0.736	0.871	0.153	0.118
Gaussian Noise	0.740	0.875	0.144	0.101



(a) Random pattern similar to the trained perturbations.

(b) Random pattern generated using Gaussian noise.

Figure 1: Visualization of random patterns.

Ablation Study: Attack performance of random patterns To illustrate the effectiveness of the proposed method, we add random patterns on the template and search regions. Specifically, we design two kinds of random patterns: (1) the random pattern similar to the trained perturbations, and (2) the random pattern generated using zero-mean Gaussian noise with standard deviation 50.0. We replace the trained perturbations with the random random pattern to attack SiamFC++_GoogleNet. The experiment is performed on GOT-Val. As shown in Table 1, random patterns cannot effectively attack the tracker.