		I_{inp}			
	3	0	0		
	1	2	0		
	0	1	0		
	0	0	0		
	I_{tgt}				
	0	2	0		
	1	3	0		
	0	0	1		
\	0	0	0		

$$u_{fwd}$$

$$(0,1) \quad (1,0) \quad (0,0)$$

$$(0,0) \quad (-1,-1) \quad (0,0)$$

$$(0,0) \quad (0,1) \quad (0,-1)$$

$$(0,0) \quad (0,0) \quad (0,0)$$

$$G_{fwd} = G_0 + u_{fwd}$$

(0,1)	(1,1)	(0,2)
(1,0)	(0,0)	(1,2)
(2,0)	(2,2)	(2,1)
(3,0)	(3,1)	(3,2)

$$I_{shift} = T(I_{inp}, G_{fwd})$$

0	2	0
1	3	0
0	0	1
0	0	0