

```
public class breakoutLaunch : MonoBehaviour
{
    // declare public variables
    // projectile prefab to instantiate
    public Rigidbody bullet;
    // projectile strength
    public float power = 1500f;
```

```
// function to create and shoot a projectile
void Shoot()
{
    // use a prefab to instantiate a projectile gameobject
    Rigidbody bulletInstance = Instantiate(bullet,
                                           transform.position + transform.up,
                                           transform.rotation) as Rigidbody;
    // set direction to shoot (can be forward, up, right...)
    Vector3 forward = transform.up;

    bulletInstance.AddForce(forward * power);
}
```

```
// Update is called once per frame
void Update()
{
    if (Input.GetButton("Fire1"))
    {
        Shoot();
    }
}
```

```
// add a timer
float timerShoot = 0f;
// add fire threshold (public -> script parameter)
public float timeBetweenShoot = 0.5f;
// Update is called once per frame
void Update()
{
    // deltaTime is frame duration
    timerShoot += Time.deltaTime;
    // only shoot if ellapsed time higher than a defined threshold
    if (Input.GetButton("Fire1") && timerShoot > timeBetweenShoot) {
        Shoot();
    }
}
```

```
void Shoot()
{
    Debug.Log("A projectile must be shot");
    // a bullet is shot, reset the timer
    timerShoot = 0f;

    // use a prefab to instantiate a projectile gameobject
    Rigidbody bulletInstance = Instantiate(bullet,
                                           transform.position + transform.up,
                                           transform.rotation) as Rigidbody;
    // set direction to shoot (can be forward, up, right...)
    Vector3 forward = transform.up;

    // send the bullet
    bulletInstance.AddForce(forward * power);

    // do not let the projectile live forever
    Destroy(bulletInstance.gameObject, 5);
}
```