

# SmoothTurret 2.0 - Getting Started

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## About

SmoothTurret is an addition to MobFarm Basics that provides improved functionality for turrets. SmoothTurret includes ballistics, smooth motion, player control, and more.

## Important!

To use the included scanner and targeting scripts, you'll need to set a few project settings, mainly to coordinate faction tag and/or layer names used.

## Turret and Project Set-up

First, you'll need to decide if you want the turrets or units to choose their own targets, or if you'll supply the targets from another source - such as a vehicle that might hold more than one turret, or perhaps from player input.

Included are scripts to scan and choose targets, but of course you may want to extend these or build your own.

### Automatic target selection:

The most typical ways sides or factions are tracked, are through tags or layers. SmoothTurret can handle either one.

MF\_B\_Scanner is the script that scans for targets and stores them in the MF\_B\_TargetList script, and MF\_B\_Targeting will then choose a target from that list. We will need to indicate a few things in these scripts that relate to your project.

When using MF\_B\_Scanner, choose either Tags or Layers from the Faction Method Type menu, corresponding to your method of team differentiation.

Now, you need to supply the tag names or layer names of the factions to be designated as valid targets.

The MF\_enum script includes the names, "Side0, Side1, Side2, Side3".

You can change your tag or layers to match these names via the Unity3D menu: Edit > Project Settings > Tags and Layers.

Or, you can change enums to match the tag and layer names of your project by editing this line near the top of the MF\_enmus script located at: \_MobFarm Basics > Scripts > Abstracts\_Statics:

```
public enum FactionType { Side0, Side1, Side2, Side3 };
```

Once you've got your tag or layer names matching, you can begin telling the scanner how to behave.

In the Targetable Factions field, increase the number to match how many different factions should be targeted. Then, you'll see a matching number of drop down menus where you can choose this scanner's targetable factions.

By default, MF\_B\_Targeting will choose the closest detected target. You may change this by using the drop-down menu of Priority. Additionally, you may check Keep Current Target, and that target will remain locked until it dies or otherwise drops off the targeting list, such as due to moving out of scanner range.

Make sure the Controller field in ST\_TurretControl is set to AI\_AutoTarget.

### Manual target selection:

If you want to manually designate a target:

1. In ST\_TurretControl, set the drop-down menu of Controller to AI\_AutoTarget.
2. Drag an object into the Target field of the ST\_TurretControl script component in the inspector.

3. Finally, make sure there is no MF\_B\_Targeting script active.□

The turret or unit will now aim or fire at the provided target and will not choose targets on its own.

This enough to get a basic targeting working. The rest of the documentation will cover more advanced features, and describe all the functions and variables in depth.

## Example Project Scenes

A zipped sample project includes some sample scenes for you to tinker with and showcase some different turret uses and set-ups. Examples are in the the Scenes folder of SmoothTurret and \_MobFarm Basics.

### AI\_Control

Shows different turrets picking and firing on various targets. Targets have been given different factions, giving the appearance of turrets prioritizing different target types. This scene also uses ballistic trajectories.

Use the number keys to switch between cameras.

1 - Control the spectator camera behind the turrets.

2 - Control the turret on the underside of the ship.

Use the 'z' key to toggle the zoom of the current camera.

Use '~' to lock or unlock the mouse.

Left-click on a turret to select it and see what targets are on its target list.

Shift-click to add or remove a target from the list.

Right-click or ctrl-click to make a target a priority.

### Ballistic

Shows a turret on a moving ship using ballistics to hit moving targets.

Click on the ground to call in an artillery barrage at that location fired by a group of turrets in the distance.

Use the 'z' key to toggle the zoom of the current camera.

Use '~' to lock or unlock the mouse.

### PlayerControl\_Mouse

Use the mouse to aim turrets, and Left-click to fire.

Use the number keys to switch between cameras.

1 - Control the medium sized turret.

2 - Control the large turret.

3 - Control the small turret.

Use the 'z' key to toggle the zoom of the current camera.

Use '~' to lock or unlock the mouse.

### SpaceBattle (\_MobFarm Basics)

Opposing teams of ships will spawn periodically. They will navigate around waypoints until they detect an enemy. Once they have a target, they will engage it.

Large Ships: Fixed twin main guns, 1 small turret.

Will fly towards other large ships and engage with main guns. Turret will shoot at closest enemy ship of any size.

Small Ships: Fixed gun.

Will fly and shoot towards the closest ship and keep it targeted.

Use the 'z' key to toggle the zoom of the current camera.

Use '~' to lock or unlock the mouse.