

Got it — you want to **start an async Task**, but before continuing with other instructions, you need to ensure that the task has **at least reached a certain point in its execution** (not necessarily completed).

This is a common pattern when you want to "sync up" at a specific checkpoint inside an async method.

✓ Solution: Use TaskCompletionSource as a Signal

You can use a TaskCompletionSource to signal when the async method has reached a specific region.

Example:

```
using System;
using System.Threading.Tasks;

class Program
{
    static async Task Main()
    {
        // Create a signal object
        var checkpointReached = new TaskCompletionSource<bool>();

        // Start the async task
        var task = DoWorkAsync(checkpointReached);

        // Wait until the async method signals it reached the
        // checkpoint
        await checkpointReached.Task;
        Console.WriteLine("Main: Checkpoint reached, proceeding with
other instructions...");

        // Continue with other work
        Console.WriteLine("Main: Doing other work while task
continues...");
```

```
// Optionally wait for the task to finish
await task;
Console.WriteLine("Main: Task completed.");
}

static async Task DoWorkAsync(TaskCompletionSource<bool>
checkpoint)
{
    Console.WriteLine("Task: Starting work...");

    // Simulate some initial work
    await Task.Delay(1000);

    // Signal that we reached the checkpoint
    checkpoint.TrySetResult(true);
    Console.WriteLine("Task: Checkpoint reached, continuing
work...");

    // Simulate more work
    await Task.Delay(2000);
    Console.WriteLine("Task: Finished work.");
}
}
```

◆ How It Works

- `TaskCompletionSource<bool>` acts as a manual signal.
- The `async` method calls `checkpoint.TrySetResult(true)` when it reaches the desired region.
- The main method awaits `checkpoint.Task` to pause until the signal is set.
- After the checkpoint, both the main method and the `async` method can continue independently.

- ◆ Benefits

- Works without blocking threads (`await` is non-blocking).
- Allows precise synchronization at any point inside an `async` method.
- Avoids race conditions compared to polling or delays.

If you want, I can also show you a **thread-safe version** that supports **multiple checkpoints** so you can synchronize at multiple stages of the `async` task.

Do you want me to prepare that advanced version?