

```
while True:

    sol = solve_ivp(kinetic_equation_of_one_step, t_span, variable_list_0, events=monitor, dense_output=True, max_step=0.05)

    t = np.linspace(sol.t[0], sol.t[-1], num=100)
    return_variable = sol.sol(t)

    t_list = np.concatenate((t_list, t))

    theta_list = np.concatenate((theta_list, return_variable[0]))
    theta_dot_list = np.concatenate((theta_dot_list, return_variable[1]))
    phi_list = np.concatenate((phi_list, return_variable[2]))
    phi_dot_list = np.concatenate((phi_dot_list, return_variable[3]))

    current_t = t_list[-1]
    current_variable_list = [theta_list[-1], theta_dot_list[-1], phi_list[-1], phi_dot_list[-1]]

    if sol.status == 1:
        new_theta, new_theta_dot, new_phi, new_phi_dot = heelstrike_event_and_change_definition(t, current_variable_list)
        if current_t == t_span[-1]:
            break
        variable_list_0 = [new_theta, new_theta_dot, new_phi, new_phi_dot]
        t_span[0] = sol.t_events[0][0] + 1e-5
    else:
        break
```