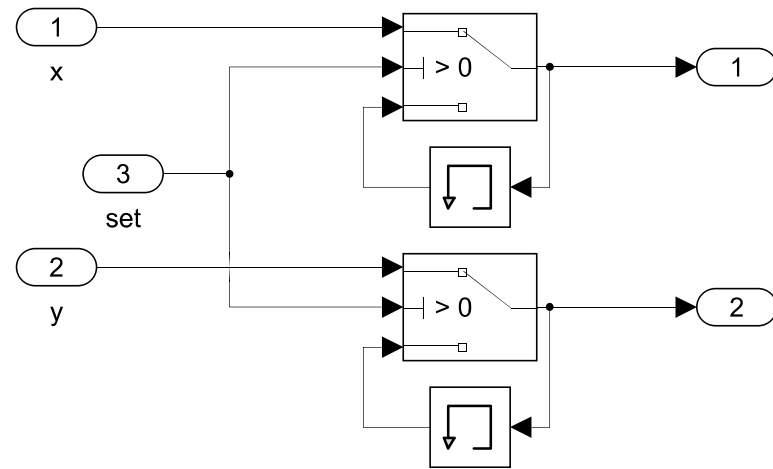


```
function w = fcn(sw,z)
```

```
    if (z > -0.35) && (z < -0.30)
        w = 0.8*sw;
    elseif (z >= -0.30) && (z < -0.20)
        w = 0.6*sw;
    elseif (z >= -0.20)
        w = 0.1*sw;
    else
        w = sw;
    end
```



```

function [x, y, z, yaw] = way(u, x_s, y_s, z_s, t)

persistent i
persistent start_time

if isempty(i)
    i = 1;
end

if isempty(start_time)
    start_time = t;
end

    x = u(i, 1);
    y = u(i, 2);
    z = u(i, 3);
    yaw = u(i, 4);
    w_time = u(i,5);

    distance = sqrt((x - x_s)^2 + (y - y_s)^2 + (z - z_s)^2);
    disp(sprintf('Distance: %.3f', distance))
    if distance < 0.1
        elapsed_time = t - start_time;
        disp(sprintf('Start time: %.3f', start_time))
        disp(sprintf('Elapsed time: %.3f', elapsed_time))
        if elapsed_time >= w_time
            i = i+1;
            if i >= height(u)
                i = height(u);
            end
            disp("waypoint")
        end
    else
        start_time = t;
    end

end

```

```

function [y, m] = points()
persistent P T;

if isempty(P)
    % ---- x --- y --- z --- yaw --- time----
    P = [ 1,    1,    1,    1,    0.5; ...
          2,    1,    3,    0.5,    0.5; ...
          -1,   2,    2,   -0.5,    0.5];
end

if isempty(T)
    T = [ 1,    1,    -1; ...
          2,    1,    -3; ...
          -1,   2,    -2];
end

y = P;
m = T;

```