```
MACHINE
    Robot_1
REFINES
    Robot_0
SEES
    Robot_0_Ctx
VARIABLES    t ,  pA ,  Target ,  Direction
EVENTS
    INITIALISATION
    END

    Behave
    REFINES  Behave
    END

    sense_close_enough
    REFINES  sense_close_enough
    END

    transition_change_direction
    REFINES  transition_change_direction
    END

    transition_change_target
    REFINES  transition_change_target
    END

    actuate_movement
    REFINES  actuate_movement
    ANY    tp
    WHERE
        grd1 :  plannar_distance(Target, pA(t)) ↦ CloseEnough ∈ gt
        grd7 :  tp ∈ ℝ+
        grd8 :  t < tp
        grd9 :
            CBAPsolutionOfFIS(t, tp, pA,
                withControl(
                    [t, tp],
                    FirstOrder2DimensionSystem(DeltaNeighborhoodSet(SpeedLimit, 0 ↦ 0), t, pA(t)),
                    PointwiseControl([t, tp], prj1(Direction), prj2(Direction), t)
                )
            , {px_ ↦ py_ | plannar_distance(Target, px_ ↦ py_) ↦ CloseEnough ∈ gt
                        ∧plannar_distance(0 ↦ 0, px_ ↦ py_) ↦ CriticalDistance ∈ lt})
    WITH
        e :
            e = withControl(
                [t, tp],
                FirstOrder2DimensionSystem(DeltaNeighborhoodSet(SpeedLimit, 0 ↦ 0), t, pA(t)),
                PointwiseControl([t, tp], prj1(Direction), prj2(Direction), t)
            )
    THEN
        act1 :
            t, pA :|
                pA′ ∈ ℝ ⇸ S ∧ t′ = tp∧
                [0, t′] ⊆ dom(pA′)∧
                CBAPsolutionOf(
                    t, t′,
                    pA, pA′,
                    withControl(
                        [t, t′],
                        FirstOrder2DimensionSystem(DeltaNeighborhoodSet(SpeedLimit, 0 ↦ 0), t, pA(t)),
                        PointwiseControl([t, t′], prj1(Direction), prj2(Direction), t)
                    ),
                    {px_ ↦ py_ | plannar_distance(Target, px_ ↦ py_) ↦ CloseEnough ∈ gt
                                ∧plannar_distance(0 ↦ 0, px_ ↦ py_) ↦ CriticalDistance ∈ lt}
                )
    END

END
```