

```
//status: IN PROGRESS
```

```
module Time_Counter(
```

```
    input CE,
```

```
    input R,
```

```
    input run,
```

```
    input clk,
```

```
    output [7:0] Q
```

```
);
```

```
    wire UTC; wire [7:0] hold;
```

```
    countUD4L counter1 (.Up(CE&run),  
.Dw(R), .LD(1'b0), .clk(clk),  
.UTC(UTC), .Qout(hold[3:0]));
```

```
    wire start_cnt;
```

```
    assign start_cnt = UTC & CE & run;
```

```
    countUD4L counter2
```

```
(.Up(start_cnt), .LD(1'b0), .Dw(R),  
.clk(clk), .Qout(hold[7:4]));
```

```
    // assign Q = hold;
```

```
    assign Q[7] = hold[4], Q[6] =
```

```
hold[5], Q[5] = 1'b0, Q[4] = 1'b0,  
Q[3] = hold[0], Q[2] = hold[1], Q[1]  
= hold[2], Q[0] = hold[3];  
endmodule
```