TEMPERATURE CONTROLLING ALGORITHM
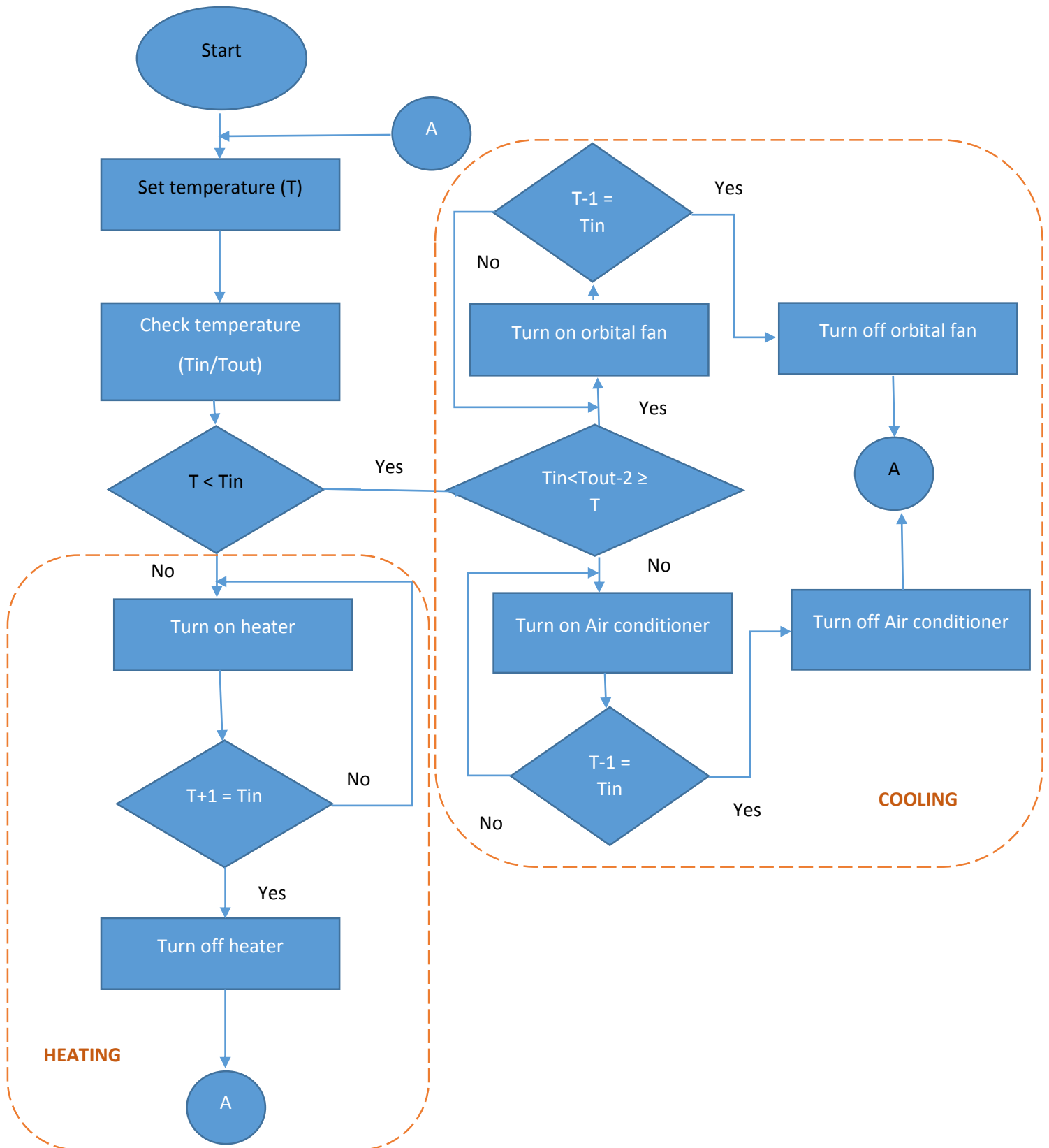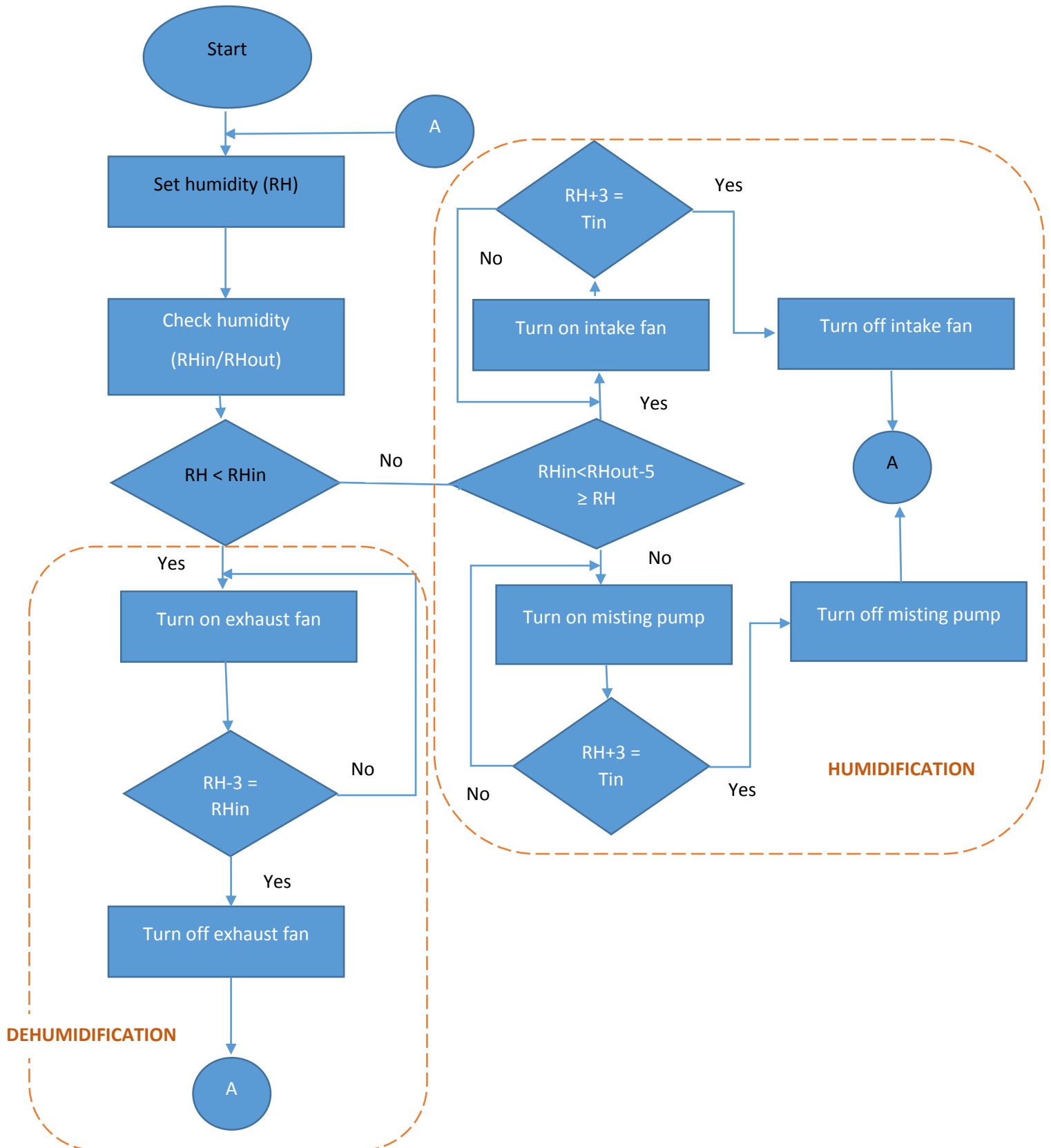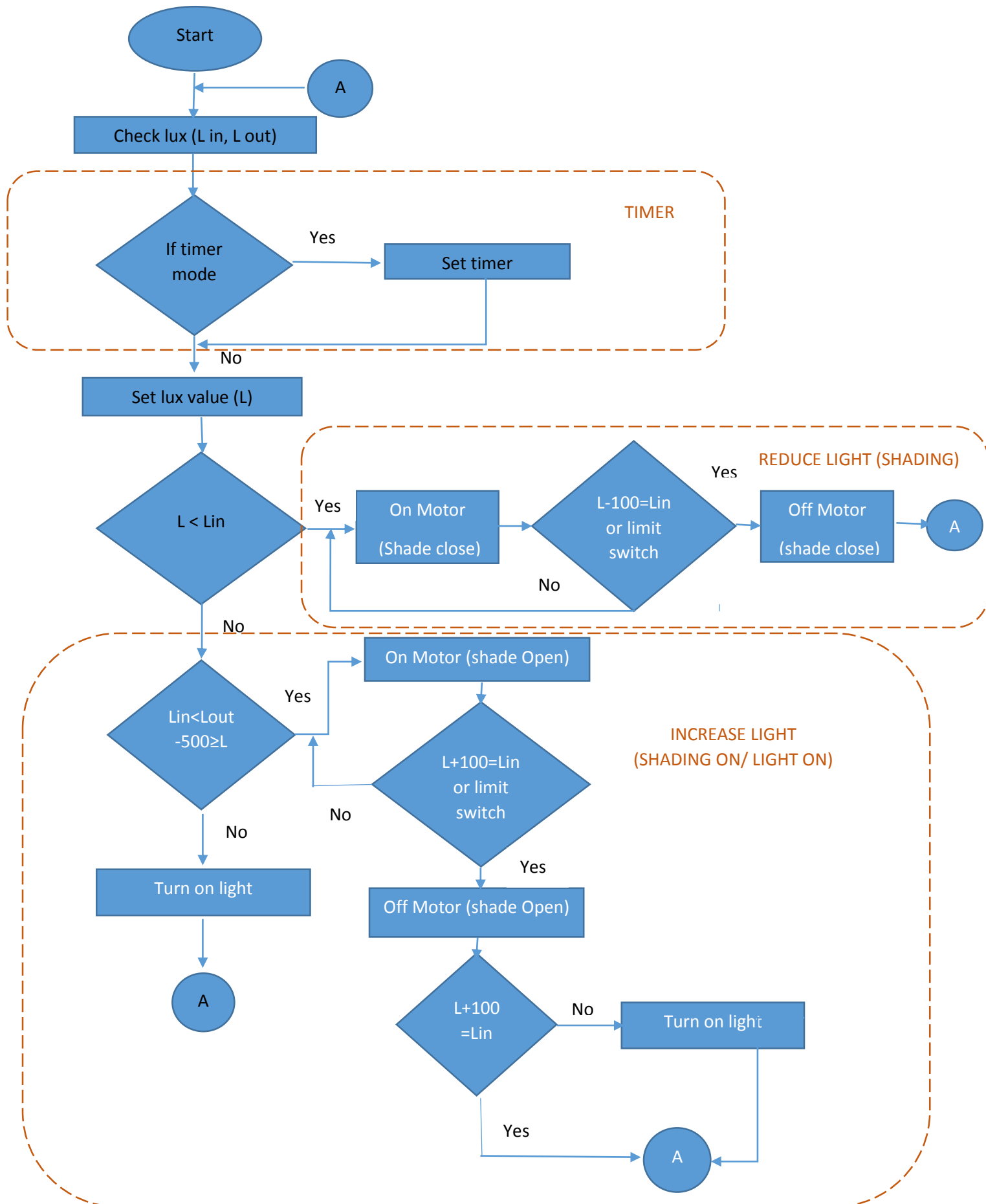
HUMIDITY CONTROLLING ALGORITHM

LIGHT CONTROLLING ALGORITHM

```
                    Start
                              ┌─────┐
                              │  A  │
                              └─────┘
                                │
        ┌────────────────────────┐
        │  Check lux (L in, L out) │
        └────────────────────────┘
```

TIMER

```
        ◇ If timer mode ──Yes──► [ Set timer ]
              │
              No
              ▼
        [ Set lux value (L) ]
```

REDUCE LIGHT (SHADING)

```
   ◇ L < Lin ──Yes──► [ On Motor (Shade close) ] ──► ◇ L-100=Lin or limit switch ──Yes──► [ Off Motor (shade close) ] ──► ( A )
        │                        ▲                              │
        No                       └──────────── No ──────────────┘
```

INCREASE LIGHT (SHADING ON/ LIGHT ON)

```
   ◇ Lin<Lout -500≥L ──Yes──► [ On Motor (shade Open) ]
        │                              │
        │                              ▼
        │                    ◇ L+100=Lin or limit switch ──No──► (back to On Motor)
        No                            │
        ▼                            Yes
   [ Turn on light ]                  ▼
        │                    [ Off Motor (shade Open) ]
        ▼                            │
     ( A )                            ▼
                             ◇ L+100 =Lin ──No──► [ Turn on light ]
                                  │                      │
                                 Yes                     │
                                  ▼                      ▼
                                ( A ) ◄──────────────────
```

MAIN ALGORITHM