# MIT_ROSMAT: Software Architecture (simplified)

**DroneRun.sh**

*logs into drone and runs*

**SpiderFlight.sh**

*runs*

**dragon-prog**

*Runs multiple threads*

*Thread a @? Hz*

*Thread b @? Hz*

*...*

*Thread "Control" ...@200Hz:*

```
.....
....
void RSEDU_control(*sensordata,*motorcommands)
...
...
```

*We fully implement this function with:*
*a) access to the server/ keyboard via a socket*
*b) access to optical flow data and image processing results via named pipes*
*c) the simulink model that is fed with a), b) and *sensordata to compute new *motorcommands*

*Thread "Vision" ...@60Hz:*

```
......
void RSEDU_image_processing(*image buffer)
...
void RSEDU_optical_flow(vx,vy,vz,...)
...
```

*We fully implement this function to process the image and dump the results into a named pipe*

*We fully implement this function with the only purpose of dumping optical flow data into a named pipe*

*c-files in /embcode/*