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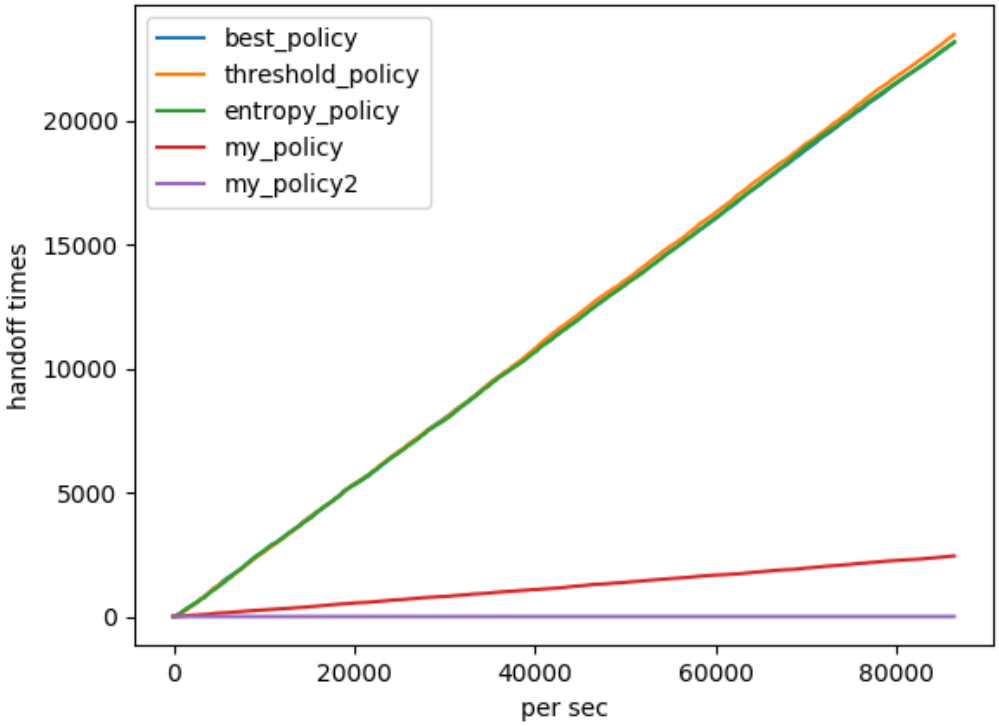
1.圖表



2.source code

```
def best_policy(car):
    # hand off ...
    old = car.hold
    pold = car.power
    pnew = pold
    new = old
    for a in range(0, 4):    # find p max
        bs = bs1 if a == 0 else bs2 if a == 1 else bs3 if a == 2 else bs4
        if pnew < bs[car.y][car.x]:
            pnew = bs[car.y][car.x]
            new = a + 1
    if pnew > pold or pold < pmin:    # old not the max
        car.change(new)
        return True
    else:
        return False
    pass
```

```
def threshold_policy(car):
    # hand off ...
    old = car.hold
    pold = car.power
    pnew = pold
    new = old
    for a in range(0, 4):    # find p max
        bs = bs1 if a == 0 else bs2 if a == 1 else bs3 if a == 2 else bs4
        if pnew < bs[car.y][car.x]:
            pnew = bs[car.y][car.x]
            new = a + 1
    if (pnew > pold and pold < threshold) or pold < pmin:    # old not the max and < threshold
        car.change(new)
        return True
    else:
        return False
    pass
def entropy_policy(car):
    # hand off ...
    old = car.hold
    pold = car.power
    pnew = pold
    new = old
    for a in range(0, 4):    # find p max
        bs = bs1 if a == 0 else bs2 if a == 1 else bs3 if a == 2 else bs4
        if pnew < bs[car.y][car.x]:
            pnew = bs[car.y][car.x]
            new = a + 1
    if pold + entro < pnew or pold < pmin:    # old not the max and diff entropy
        car.change(new)
        return True
    else:
        return False
    pass
    pass
def my_policy(car):
    # hand off ...
```

```
    old = car.hold
    pold = car.power
    pnew = pold
    new = old
    for a in range(0, 4):    # find p max
        bs = bs1 if a == 0 else bs2 if a == 1 else bs3 if a == 2 else bs4
        if pnew < bs[car.y][car.x]:
            pnew = bs[car.y][car.x]
            new = a + 1
    if (pnew > pold and car.duration > 75*3) or pold < pmin:    # old not the max and
last ? sec
        car.change(new)
        return True
    elif pold < pnew:    # time for pold not the max
        car.elapse()
        return False
    else:
        return False
    pass
    pass
def my_policy2(car):
    # hand off ...
    old = car.hold
    pold = car.power
    pnew = pold
    new = old
    for a in range(0, 4):    # find p max
        bs = bs1 if a == 0 else bs2 if a == 1 else bs3 if a == 2 else bs4
        if pnew < bs[car.y][car.x]:
            pnew = bs[car.y][car.x]
            new = a + 1
    if pold < pmin:    # until pmin
        car.change(new)
        return True
    else:
        return False
    pass
    pass
```

3.introduction to your policy

best_policy average power:-102.10893055070792
threshold_policy average power:-102.23139179277292
entropy_policy average power:-102.29429479361116
my_policy average power:-105.98173710480074
my_policy2 average power:-106.29268918827741

mypolicy:當車子累積超過 75*3 秒原本負責 BS 功率不是最大再 handoff，可減少部分剛好繞出一圈(走三段)又回到原本 1/4 區域的 handoff，比 best/threshold policy handoff 較少次但 average power 比較低，彈性沒 entropy policy 高(由於參數問題在此例 entropy policy 有較多次 handoff)。

mypolicy2:直到功率要小於 pmin 時才 handoff，handoff 必最少次(當前參數功率不可能小於-125 故 handoff 0 次)，但 average power 最低。